# PROPOSED
# ECONOMIC DEVELOPMENT
# PROGRAMME
# FOR THE
# REPUBLIC OF SOUTH AFRICA

1965-70

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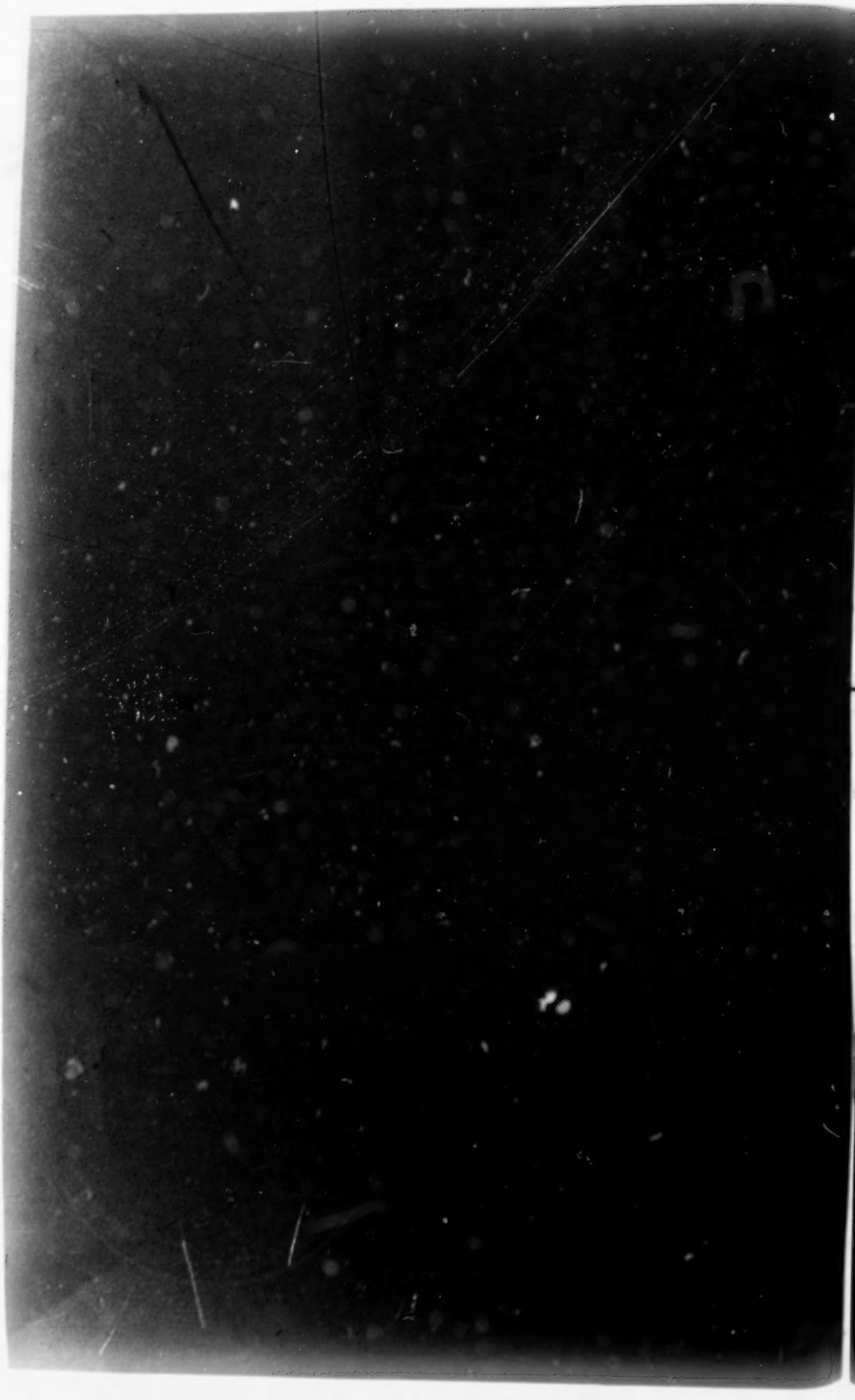

# PREFACE.

The Economic Development Programme for the period from 1964 to 1970, which is released herewith, is the second publication in this series. It represents, on the one hand, an adaptation of the projections made in the first E.D.P., and, on the other, a continuation thereof up to the end of 1970. I trust that the present study will be as well received as its predecessor, and that building on the foundations laid in the first E.D.P. in respect of the co-operation between the Public and Private Sectors will be continued with a view to maximising the long-term growth rate of the economy.

The adaptations in the present study embrace, firstly, the incorporation of the effect of the economic development experienced in 1964 on the targets which have to be aimed at during the six-year period from 1964 to 1970 if an average real growth of 5½% in the Gross Domestic Product is to be attained during the seven-year period from 1963 to 1970 as a whole. Secondly, it also embraces the incorporation of the effects of certain technical improvements in the quantitative estimates of the E.D.P. during the past year.

Although the outline and sub-division of the present document agrees fairly closely with that of the first E.D.P., this does not necessarily mean that the same will apply to all future Programmes. The terminology and certain background information, for example, may probably be accepted as known in future. The Government is of the opinion furthermore that, with a view to the greatest possible benefit of the E.D.P. for business men, attention should to an even greater extent be given to the sectoral part of the Program in future.

Owing to the smallness of the staff used for the technical compilation of the Programme, it is possible that the global part of the E.D.P. will be presented in less detail in certain future years.

J.F.H. HAAK
MINISTER OF PLANNING.

PRETORIA.
8th December, 1965.

## PREFACE.

An exceptional degree of co-operation between private business men and the Government was established even in the first E.D.P. in regard to the drafting of the Programme, the principal aim of which is to increase as rapidly as possible the standard of living, from a long-term point of view, of all South Africans. The first effort was to a large extent an experiment, and all members of the Private Sector who so willingly collaborated in this connection deserve the commendation and appreciation of my office. In particular I wish to extend a sincere word of thanks, firstly, to the members of the Economic Advisory Council of the Prime Minister who have supported and directed this project from the very outset, and, secondly, to the members of the Sectoral Advisory Committees who made an important contribution in regard to the technical construction of the Programme.

The first E.D.P. was received far better than expected, and I hope that the reception of this second Programme will be as good, and that it will assist in making the Economic Development Programme a still more effective aid for private business men as well as policy makers in following a long-term policy which will promote economic growth.

P.J. RIEKERT
ECONOMIC ADVISER TO THE PRIME MINISTER AND CHAIRMAN OF THE ECONOMIC ADVISORY COUNCIL.

PRETORIA.
8th December, 1965.

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# THE ECONOMIC DEVELOPMENT PROGRAMME FOR 1965 - 70

## PART I : INTRODUCTION

1. South Africa's first Economic Development Programme (E.D.P.) was published in December 1964.[1] In that report it was stated that the E.D.P. would be revised annually in the light of the actual pattern of economic developments and the more detailed statistics which might become available, and that the periods covered by the successive Programs would on each occasion be advanced by a further year into the future. The present second E.D.P. represents the first such revision. The first E.D.P. indicated the quantitative implications of the maintenance of each of three alternate rates of growth in South Africa's real Gross Domestic Product (G.D.P.) between 1964 and 1969. These rates of growth were 4½%, 5½% and 6% per annum, respectively. On the 10th February, 1965, the Minister of Planning announced in Parliament that the Government had decided to accept the 5½% rate of growth as a target of policy.

### (1) Implementation of the E.D.P.

2. The result of this decision was that the target and developments indicated in the E.D.P. have been taken into account since February 1965 in the quantitative formulation and implementation of the Central Government's long-term economic and financial policy. Although the necessity of special analyses was not fully realised when a start was made with economic development programming, it soon became clear that such analyses would generally be necessary for a comparison of the actual development, realised up to any given stage within the period covered by the E.D.P., on the one hand with the E.D.P. targets, on the other. These analyses are necessary in order to determine whether any deviations have occurred, and if so, what policy measures seem to be appropriate at that stage. Analyses of this kind have been made since February, 1965, not only in respect of developments in the economy as a whole, but also in regard to developments in specific sectors of the economy which are considered to be of strategic importance from the point of view of economic growth, and in which the Government or semi-government institutions play a major role.

3. Although contact with the Private Sector has given the E.D.P. section the impression that an increasing number of businessmen are taking account of the sectoral estimates of the E.D.P. in connection with the investment's and future planning of their own firms, no attempt has hitherto been made to conduct follow-up studies such as those described above in respect of the Public Sector in connection with the rôle allocated to the Private sector in the E.D.P. It was felt, however, that such follow-up work is desirable, if businessmen are to be given reasonable accurate indications of the extent to which developments in each individual sector were in line with, or deviated from, the E.D.P. targets for that sector. It has

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1) Economic Development Programme for the Republic of South Africa 1964-69, Released by the Department of Planning.

therefore been decided that in future special follow-up meetings of the Sectoral Advisory Committees will be arranged for those sectors where significant deviations are found between the actual development realised and the E.D.P. targets set. The deviations between the realised developments and the E.D.P. targets for the sectors concerned will then be discussed at these meetings with the representatives of the Private Sector, and the intention is to give joint consideration to measures which may possibly be taken in order to assist the Private Sector in attaining the targets, set for them in the E.D.P. It goes without saying that this kind of assistance is particularly necessary when the realised development in a specific sector fails to reach the E.D.P. targets.

4. In view of the fact that the rate of growth actually realised in the real G.D.P. during 1964 was approximately 6.3%, i.e. higher than the 5½% set as a target, in the E.D.P. and that certain deflationary measures have been taken since the end of 1964, the question arises whether restrictive measures will necessarily always be adopted if the growth actually realised exceeds the E.D.P. target rate of growth. The answer is that the deflationary measures taken during 1965 were adopted not so much because the realised overall rate of growth exceeded the 5½% target rate of growth, but because this situation was accompanied by inflationary pressure, a serious shortage of skilled labour in certain sectors, a transport and telecommunications bottleneck and a decrease in South Africa's gold and foreign exchange reserves. These features, which accompanied the high rate of growth realised, would in any case have made the application of deflationary measures unavoidable, irrespective of whether the actual rate of growth realised had been higher or lower than the target rate of growth. The fact that the realised rate of growth of 6.3% was higher than the target rate of growth of 5½%, and that the former, judged in the light of the concomitant features, is too ambitious for South Africa to maintain, gives the impression however, that the target rate of growth is more or less of the right order of magnitude. If a rate of growth of 6.3% had been attained without any of these undesirable concomitant features, it would in all possibility have been unnecessary to take any deflationery measures, but the calculations of the E.D.P. would have had to be carefully checked because it would then have appeared that a too conservative rate of growth had been chosen in the light of the E.D.P.

5. Restrictive measures in regard to the rate of overall growth will therefore not be taken merely because the actual economic growth exceeds the target rate of growth, but because undesirable features, or their portents, accompany such a larger rate of growth.

6. A question raised by some representatives at meetings of the Sectoral Advisory Committees was whether specific restrictive measures in respect of particular sectors would be considered if those sectors should grow considerably faster than the targets set in the E.D.P. in this connection, while the rate of growth for the economy as a whole was more or less the same as that set by the E.D.P., so that there could consequently be no possibility of general deflationary or restrictive measures. Such a situation would mean that a mistake has been made in the E.D.P. estimates in regard to the composition pattern of one or more of the magnitudes of consumption expenditure, investment, imports or exports at an assumed higher

level of overall production and income. Since it is not so much the intention of economic development programming to bring about any specific patterns of expenditure, as to ensure that the overall rate of economic growth is kept as high as possible, it appears unlikely that measures aimed at a specific sector would be taken in such a case. An exception would, of course, have to be made in this connection if at any particular time the higher than estimated development in a given sector or sectors endangers the future maintenance of the target rate of growth for the economy as a whole. It would appear, however, that the occurence of such a situation is very unlikely.

(2) Nature of the present document

7. As in the case of the first published E.D.P., the present document is also intended to serve mainly as an aid for the economic and financial policy makers of the Republic, and for private businessmen who wish to make use of the development possibilities indicated in it. Similarly, no attempt will therefore be made in this report to describe the technical aspects of the calculations made within the framework of the E.D.P. but only to indicate the quantitative results of the new set of calculations, to interpret the figures, and to point out their most important policy implications.

8. It was assumed that it would be unnecessary to repeat any general remarks made in the first E.D.P. in order to place the whole question of development programming in the right perspective. It is only in so far as new problems or insights have emerged that matters of this nature will be discussed again.

9. In the first E.D.P. it was stated further that the E.D.P. section intended to draw up a comprehensive memorandum on the manner in which the figures were calculated with a view to their internal use, and for possible continued future consultation with fellow economists, Government departments and semi-government bodies in regard to the methods of calculatio employed. Follow-up work in connection with the comparison of actually realised economic development with the E.D.P. targets, and work relating to the improvement of the methods of consultation and calculation used, have taken up so much time however, that it has proved impossible to complete the envisaged memorandum. It is still the intention, however, to complete such a memorandum, although it will not necessarily be published.

(3) Choice of the years for which figures are published

10. In the first E.D.P., figures were published in regard to overall development for each assumed rate of growth for the base year, the two immediately ensuing years, and the final year of the E.D.P. period. In the present document data for global development are given only in respect of the base year, antepenultimate year and the final year of the E.D.P. period. It was felt that, since the idea of publishing figures for years between the base year and the final year of the E.D.P. period is merely to indicate the trend of development under the assumed rate of growth, the choice made for the second E.D.P. is really more appropriate than was the case with the first E.D.P.

11. A further factor which contributed to the choice of years for which figures are published, is that it is already clear that, when the data become available in regard to the actual pattern of economic conditions during 1965, they will show important deviations from the targets estimated for 1965 in the E.D.P. for the 5.4% target rate of growth.[2] Since the first year of the E.D.P. period will always virtually have elapsed by the time that the E.D.P. is published, it will be purely fortuitous if the actual pattern of economic development is in agreement with the "targets" set in the E.D.P. for that particular year. In fact it may rightly be asked whether there is really any sense in indicating targets for a year which will always have elapsed, or virtually have elapsed, by the time that the targets become known. Experience during the past year has shown that it is indeed meaningful to know the "targets" for a year which has already elapsed or has almost elapsed, the reason being that it is from these deviations between actual development on the one hand and such "targets" on the other, that conclusions can be drawn in connection with the best policy measures for the immediate future. In order to determine at any particular stage what appropriate policy measures have to be taken, it is necessary not only to know what the targets to be attained are but also to have an idea of the extent to which, up to this stage, actually realised economic development is in agreement with or has deviated from, the targets. Since economic statistics indicating the pattern of economic development are never available right up to the time when policy decisions are made, but usually only up to a few months before that time it is generally necessary to make a "forcast"[3] in order to determine the extent to which the economic development actually realised up to that particular stage was in agreement with, or deviated from, the targets. A "real forecast" indicating the expected actual pattern of economic development, if no specific measures are taken to influence it, and a determination of the extent to which this expected actual development is in agreement with, or deviates from, the E.D.P. targets, is of course also desirable in order to be able, at any particular moment, to arrive at a decision about the policy measures which have to be adopted.

12. From the foregoing it is clear that, in order to decide at any particular moment what appropriate policy measures have to be taken, in regard to overall economic development, a considerable number of analyses additional to the E.D.P. targets are essential. The fact that the actual economic development realised during 1965 will show considerably deviations from the E.D.P. targets calculated on the assumption of a 5.4% rate of growth for this year, will therefore not give the policy makers any wrong impression. In fact, it is these very deviations which, together with other information, will determine their policy decisions, and which have to some extent already determined them during the last eight months. The danger exists however, that the publication of "target figures" for a year which has already elapsed by the time that the E.D.P. is printed, especially in a case where the actual development for

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2) Since the actual rate of economic growth during 1964, was higher than 5½%, it is merely necessary to maintain a rate of growth of approximately 5.4% per annum till 1970 in order to reach the target rate of growth of 5½% for the period as a whole. See paragraphs 16 and 17.

3) Needless to say, this "forecast" is not applicable to the future, but is in fact a "backward forecast."

that year deviates considerably from the "target figures", may create a serious misunderstanding in the minds of people who are not fully acquainted with the procedures and techniques of development programming and economic policy making, and may possibly cause them to think that all the calculations of this second E.D.P. have a very unsound foundation. For this reasons, in addition to the consideration mentioned in paragraph 10, it was felt that it would be preferable not to publish the targets of the E.D.P. in respect of the overall economic development for 1965, although the macro-economic targets in regard to each individual year covered by the E.D.P. will of course be made available to all government departments concerned with policy decisions.

13. In so far as the sectoral targets are concerned, only the base-year figures and figures for the final year of the E.D.P. have been published in the current Programme, just as was the case in the previous one. From the nature of the interest shown in the E.D.P. by the Private Sector, during the past year, the E.D.P. section has gained the impression that the Private Sector is interested particularly in the average growth which can be expected in its sector in the course of number of years, and not so much in the random deviations from this trend which may possibly occur during individual years. For this reason, fugures for the base year and the final year of the E.D.P. are therefore preferable.

(4) Choice of Overall Rates of Growth

14. In the first E.D.P. the implications of overall rates of growth of 4½% per annum, 5½% per annum and 6% per annum were worked out. Although the rate of growth of 5½% per annum was accepted as a target rate of growth, the actual growth in South Africa's real G.D.P. during 1964 was higher than this figure. As has already been indicated in the first E.D.P., such an eventuality would simply mean that a slightly lower rate of growth would have to be maintained during the rest of the period in order to attain the target rate of growth as an average for the period as a whole, provided that the original target rate of growth was more or less correctly chosen.

15. According to estimates, the growth in South Africa's real G.D.P. during 1964 was approximately 6.3%. If a rate of growth of 5½% is also accepted for the period from 1969 (the final year of the first E.D.P. period) to 1970, and the actual G.D.P. for 1964 is then related to this target in respect of the value of the G.D.P. in 1970, it is evident that an average annual growth of 5.37% in the real G.D.P. will have to be maintained from 1964 to 1970 in order to attain the target for 1970.

16. The fact that the target rate of growth in the present E.D.P. has therefore been decreased from 5.5% to 5.4%, does not mean that the growth target set in the first E.D.P. has been changed, but merely that the same target in respect of that increase in the G.D.P. which is aimed at for the future, is now related to a new base year, namely 1964, instead of 1963 which was used as base in the first E.D.P. The two alternative rates of growth for which the overall implications were worked out, are respectively a ½% higher and a ½% lower than the target rate of growth chosen in order to indicate to the Government the most important overall implications of a significant deviation above or below the target rate of growth.

17. The adjustment in the target rate of growth described in the foregoing paragraphs reflects the statement made in the first E.D.P., namely that no attempt is made to incorporate the expected future business cycles in the overall growth targets estimated in the E.D.P., but that actually realised business fluctuations are indeed taken into account in estimating future targets.[4]

(5) Sectoral figures for the 5,4% growth rate only

18. In contrast with the procedure followed in the first E.D.P., sectoral development figures are presented only for the 5.4% growth rate in this document. Since the 5½% rate of growth has now been officially accepted as a target of policy, it is particularly the estimated figures of sectoral development accompanying this over-all growth rate which are of interest to the private sector and which should have an influence on their decisions regarding an expansion of their own enterprises. The implications of growth rates which are slightly higher or lower than the target growth rate are very important for global policy formulation by the Government because they provide some indications of the quantitative implications of over-all growth rates which are slightly higher or lower than the target growth rate. Conversely, this analysis is important because it shows which global growth rates will normally be associated with a particular pattern of strategic global economic magnitudes (e.g. the current account of the balance of payments) which differ from those associated with the target rate of growth as shown in the E.D.P.

(6) Actually realised economic development during 1964 in relation to the E.D.P. targets

19. In the foregoing discussion, oblique reference has already been made, at various points, to the actual course of economic conditions during 1964 in relation to the targets which can be deduced from the E.D.P. for this year. It seems desirable that more should be done in this connection than merely to compare the over-all rate of growth attained by the South African economy with the target rate of growth[5], since all aspects of the actual pattern of economic development during this first year of the E.D.P. period will influence the targets set in the second E.D.P. As explained in paragraph 27, the course of economic development shown in Tables 1 to 5 for each of the alternative rates of growth is not expected to be realised automatically if the assumed over-all growth rates are attained, but represents patterns of economic development which imply specific policy approaches to economic growth during this period. To a large extent the broad trends of policy implied by the figures depend upon the actual course of economic development during 1964 in relation to the targets implied in the first E.D.P. for this year.

20. It is necessary to point out that, although considerable data regarding the course of economic development during 1965 were available when this E.D.P. was finalised, this information was not taken into account in estimating the targets for the present E.D.P. for

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4) See paragraph 29 of "Economic Development Programme for the Republic of South Africa, 1964-1969.

5) See, for example, paragraphs 4 and 16.

1965-1970[6]. In fact, the necessary policy measures were based, and will still have to be based, on the deviations between these targets for 1965 (up to now as indicated in the first E.D.P.) and the actually realised development during this year. It follows that the actual course of economic conditions during 1965 will have to be thoroughly gone into when the proper policy measures are decided upon, but that a discussion of the actual pattern, of such conditions in the present context, i.e. where an attempt is made to estimate the targets for 1965 and the ensuing years, is not necessary.

21. As has already been mentioned in paragraphs 4 and 16, the outstanding feature of South African economic development during 1964 was the fact that the real Gross Domestic Product showed a growth rate of approximately 6.3% in comparison with the 5.5% set in the first E.D.P. as the average annual target for the whole period from 1964 to 1969.

22. Although the available statistics in regard to employment, productivity and unemployment are such that accurate conclusions about the course of these magnitudes during 1964 could not be drawn with absolute certainty, the following conclusions nevertheless seem to be well founded :

(i) The economic growth of South Africa during 1964 was attended with a higher than estimated employment figure and a sharper decline in the number of unemployed and unclassified persons than was foreseen in the first E.D.P. This development can be ascribed partly to the fact that the global growth rate actually attained was higher than the target rate of growth, but apparently also to a certain extent to the fact that the target for the over-all productivity increase set in the first E.D.P. was somewhat too high. Nevertheless, during 1964 the real contribution to the Gross Domestic Product per person employed in manufacturing increased more rapidly than was estimated, but this was to a large extent the result of overtime work, the full utilisation of capacity, etc., and this therefore, means that further increases in this figure will not be so easily attained in the years immediately following 1964. A serious shortage of man-power, especially skilled labour, was experienced.

(ii) Since the bottleneck in skilled man-power was in any case one of the two most important reasons why a higher growth rate than 5½% per year was not accepted as the target, the above development means that South Africa will reach the ceiling set by the available skilled man-power even sooner than was estimated.

23. An analysis of the national accounts for 1964 shows that net national saving amounted to only 13.67% of the net national income. The estimated target for 1964 was 14.82% for a growth rate of 5½%, and 14.94% for the 6% growth rate. This relatively low figure for net national saving in 1964 was caused mainly by a decline of R94 million in personal saving as compared with the position in 1963. This resulted inter alia in a deficit of R56 million on the

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6) See paragraph 11.

current account of the balance of payments being required to finance the growth rate of 6.3%. The fact that total expenditure in 1964 considerably exceeded the available means, was due to private consumption expenditure constituting a much greater percentage of net national income than was foreseen in the E.D.P. The target for 1964 at a growth rate of 5½% was 70.56%, and at a growth rate of 6% the target was 70.51%. The percentage actually realised in 1964 was 72.62%. This high actually realised percentage must to a certain extent be seen as the result of a revision of the figures for private consumption expenditure in the national accounts for the most recent years. This revision resulted in the figures for private consumption expenditure, expressed as percentages of the net national income, being slightly higher than was previously the case. So, for example, personal consumer spending, expressed as a percentage of net national income at market prices for the years 1961 to 1963, averaged 70.42% according to the national accounts figures on which the first E.D.P. was based. The revision of these figures has now increased the average percentage for these years to 71.44%. The 1964 level of personal consumption expenditure, seen even in relation to the new ratio of personal consumption expenditure to net national income during the past few years, must still be regarded as high. Neither the public consumption expenditure nor the total gross capital formation, in relation to the realised Gross Domestic Product, was partigularly high in 1964.

24. The overspending in relation to our available means, as explained above, must inevitably be reflected in South Africa's imports and exports. Notwithstanding the frequent warnings about the level of our imports during 1964, this level does not seem, on closer examination, to have been excessively high in relation to the Gross Domestic Product. In the first E.D.P. the figure for commodity imports, expressed as a percentage of the Gross Domestic Product, was put at 20.06% for 1964 at a rate of growth of 5½%. For a rate of growth of 6% per annum the comparable figure was 20.71%, while the figure actually realised for 1964 was 20.95% at a rate of growth of 6.3%. The ratio actually realised therefore seems reasonable in comparison with the ratios estimated in the first E.D.P. This analysis therefore appears to confirm the view that imports during 1964 were not excessive in relation to the level of economic activities, and, in view of the monetary situation at that time, a limitation of imports would probably have promoted inflationary trends.

25. An analysis of commodity exports and re-exports soon reveals, however, that the Republic failed to reach that level of exports in 1964 which could be expected to be associated with the realised growth rate of 6.3%. It was estimated in the first E.D.P. that exports and re-exports of goods would have to amount to 14.56% of the Gross Domestic Product in 1964 at a growth rate of 5½%. The corresponding percentage for a 6% growth rate was slightly higher, namely 14.60%. Notwithstanding the fact that the actually realised growth rate was even higher than 6%, commodity exports and re-exports amounted to only 14.27% of the Gross Domestic Product. Although the total value of goods exported during 1964 was therefore not appreciably lower than the target set in the E.D.P. at a growth rate of 5½% per annum in overall economic activity, the figure was too low to maintain a growth rate of 6.3%. The value of exports actually attained was brought mainly about by a fortuitous change in export prices

which were in South Africa's favour. As a result of the drought, exports of agricultural products were approximately 12% below the target for 1964, and had it not been for a favourable change in the export prices of such products, the difference would have been even greater. Exports of mining products exceeded their 5½% growth rate target, while exports of manufactured goods also slightly exceeded their targets, despite a slightly unfavourable price movement.

26. On the strength of the foregoing description of economic development during 1964 it seemed reasonable not only to set the average target rate of growth for the period 1965-1970, based on the higher base year 1964, slightly lower than 5½%, but also to reduce the rate of growth of personal consumption expenditure temporarily. The reason for the latter measure is to build up the gold and foreign exchange reserves to the level reached at the end of 1963 as fast as circumstances permit before consumption is allowed to show the normal rate of increase which is expected to be associated with the rise in net national income for which provision is made in the Programme. The actual course of economic development during 1964 is therefore taken into account in the E.D.P. for 1965-1970 in the case of each of the three growth alternatives by programming for a greater or lesser restriction of personal consumption expenditure at the start of the programming period. In view of the actual position in regard to employment, productivity and unemployment, as set out in paragraph 22, it was considered further that, with 1964 as basis, the attainment of the same productivity increase which appeared acceptable with 1963 as basis, could not be depended upon. The target for future increases in industrial productivity during 1965-1970 was therefore set considerably lower in the present E.D.P. than in the first E.D.P., with the result that the target for productivity increases in the economy as a whole is also somewhat lower.

(7) Different policy situations presumed under different over-all growth rates

27. Largely in contrast with the position in the first E.D.P., each of the three over-all growth alternatives in the present Programme presupposes specific policy situations. It is therefore not expected that economic conditions will automatically follow the course indicated by the figures in the E.D.P., but that influence may have to be exerted in specific directions by means of policy measures in order to bring about the envisaged developments under the assumed growth rates. The reason for these presupposed policy directions for each of the growth rates is that in the present E.D.P. specific problems arise, or that certain alternative decisions have to be made under each of these growth rates.

28. It has already been shown in paragraph 26 that the necessity of limiting personal consumption expenditure to a lesser or greater extent existed in the case of each of the three growth rates examined in this E.D.P. A detailed exposition of the considerations underlying the estimated figures will be given in the following section. It was felt, however, that it is advisable to mention in the introduction to the present E.D.P. that the figures describing economic development under the 4.9% growth rate were estimated on the assumption that only a small increase in private consumption expenditure would be allowed in 1965, and

that a regular per caput increase would occur thereafter until personal consumption expenditure as a percentage of net national income reaches an adequate level by 1970. The development of personal consumption expenditure for the 5.4% growth rate is basically the same as for the 4.9% growth rate, except that consumption in 1965 is limited to a smaller percentage of net national income than in the previous case, and that it is also not allowed to increase to the same high percentage by 1970 as in the case of the 4.9% growth rate. For the 5.9% growth rate, consumption is limited up to and including 1968 to the minimum percentage of net national income regarded as maintainable in practice over a number of years. This limitation of personal consumption expenditure is necessitated by the fact that more capital formation is required at this growth rate, and that a slightly greater total surplus on the current account of the balance of payments over the 6 years of the E.D.P. period is essential in order to satisfy the liquidity needs of the economy. During the last two years of the E.D.P. period, however, a limited increase in personal consumption expenditure as a percentage of net national income is allowed.

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7) Not a lower absolute amount.

## PART 2

## PRESENTATION AND INTERPRETATION OF THE FIGURES

### Introduction

29. As has already been mentioned, the implications of three alternative growth rates for the most strategic economic magnitudes of national importance have been worked out. In what follows, the quantitative results obtained will be presented and interpreted with regard to the following :

(1) The G.D.P. and its utilisation.

(2) The pattern of the balance of payments.

(3) The labour market and the contribution of the four main sectors to the G.D.P. The four main sectors distinguished are Agriculture, Forestry and Fishing; Mining; Manufacturing and Construction; and, finally, the Services Sector.

(4) Capital formation in the main sectors of the economy.

(5) Public finances, together with the financial and monetary aspects of the assumed development.

The figures calculated on a sectoral basis will then be presented and discussed.

30. The method of calculating the figures amounts briefly to the following : an initial calculation of the future values of the G.D.P. is made by applying the accepted future rate of growth in the G.D.P. to the value of the G.D.P. in the base year. Thereupon calculations are made, according to a variety of methods, of the values of the principal strategic magnitudes of the economy which are most likely to be associated with the values accepted for the future G.D.P. From these data the total value of final demand for the economy by 1970 are next determined for each of the alternative growth rates. The total values obtained are then subdivided on the basis of the 31 sectors of the South African economy distinguished in the E.D.P. The final step is to calculate, by means of interindustry analysis for each individual sector of the economy, the production, employment and investment most likely to be associated with the volume and pattern of final demand already estimated.

31. It is probably unnecessary to state that it was not possible to obtain equally reliable estimates for all these magnitudes. The underlying assumptions and any reservations about these figures, as well as the implications of the differences in accuracy with which these figures have been calculated, will, however, be mentioned in the discussion when considered necessary.

### (1) The Gross Domestic Product and its Utilisation[8]

#### (a) The Gross Domestic Product

32. After a decision has been taken in regard to the growth rates for which

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[8] All components of the G.D.P., as well as its utilisation, will be discussed with reference to the figures in Tabel 1.

the economic implications have to be worked out, it is possible to calculate the G.D.P. for each of the various years. The figures for the G.D.P. appearing in Table 1 are in fact determined by the size of this item in the base year, namely 1964, and by the rates of growth of the G.D.P. which has been accepted as starting point and applied to it.

33. Since the programming applied in South Africa is of the type in which the approach is to trace the utilisation of the production factors associated with that spending of the net national income which autonomous spenders choose to make, it is first of all necessary to determine the values of the net national income which are likely to be associated with the values of the G.D.P. already calculated. In determining the net national income, it is necessary to adjust the G.D.P. for depreciation, net factor payments to the rest of the world and changes in the terms of trade.

(i) Depreciation

34. Depreciation really represents the consumption and wear and tear of capital assets in the process of generating the G.D.P. The extent of depreciation, of course, largely depends on the size of the capital assets used at any given moment to generate the G.D.P., and these are in turn ultimately influenced by the annual additions to the existing assets, i.e. by net capital formation.

(ii) Net factor payments

35. Net factor payments are the payments accruing to foreign labour and capital for their contribution in generating the G.D.P. of South Africa. The term "net" is used since the foreign earnings of South African citizens and capital are deducted from the earnings South Africa has to pay to foreign labour and capital.

36. The net factor payments to countries abroad are on the one hand closely bound up with the volume and profitability of foreign investment in South Africa, and on the other hand with payments to foreign labourers working in South Africa. Fairly reliable estimates can also be made for this item.

(iii) The effect of the terms of trade

37. Since the G.D.P. and its utilisation have been calculated at constant prices, it was necessary to allow for any expected future change in the terms of trade. Part of the G.D.P. is exported, while part of the domestic expenditure consists of purchases of imported goods. If export prices drop while import prices rise, it therefore means that that part of the G.D.P. which has to be exchanged for imported goods will have to increase in volume in order to obtain the same volume of imports. In such a case, the volume of goods available for domestic use will be smaller than the increase in the G.D.P.

38. In Table 1 provision is made for an adverse development in the terms of trade, which by 1970 will vary between R103 million and R110 million for the various growth

rates.[9] These amounts are influenced by the volume and price movements of both exports and imports. Although fairly accurate estimates of the changes in the volume of imports and exports could be made, it was extremely difficult to allow for possible price changes. International price movements are subject to considerable fluctuations, but the prices of primary products, in contrast with those of manufactured goods, appear to show a long-term downward trend. The effect of changes in the terms of trade has been calculated on the basis of a continuation of these trends. During 1964, however, the terms of trade moved in our favour as a result especially of an increase in export prices, but it is expected that this was only a temporary phenomenon. Although the quantitative effect of the terms of trade on the net national income is not very considerable, it is nevertheless an important item in the balance of payments.

(iv) The net national income

39. The net national income is obtained after adjusting the G.D.P. for depreciation, net foreign factor payments and changes in the terms of trade.

40. According to the estimates of the net national income reflected in Table 1, this item increases at a somewhat slower rate than the corresponding rises in the G.D.P. for the three growth alternatives. The net national income rises by 4.6%, 5.1% and 5.6% per annum for the growth rates of 4.9%, 5.4% and 5.9% respectively, in the G.D.P. The reasons for this are, first, the increase in the depreciation allowances which, for each growth alternative rise more rapidly than the corresponding G.D.P., and, secondly, the deterioration in the terms of trade for which provision has been made.

(b) Utilisation of the Net National Income

(i) Private consumption expenditure

41. In the base year 1964 an exceptionally high increase occurred in private consumption expenditure and in gross private fixed investment, with the result that towards the end of 1964 the Government requested a curtailment of private consumption expenditure for the immediate future, together with an increase in general saving. A policy aimed at curbing such expenditure was inevitable, since the developments set out above brought about a deficit of R56 million on the current account of the balance of payments in 1964 in comparison with a surplus of R148 million in 1963. According to the methods of calculation used in the E.D.P., the amount of fixed capital formation for each accepted growth rate is a given target, since it

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9) In order to correct the effect of the terms of trade on the net national income, only the volume of imports actually bought by exports during the period in question has to be taken into account. In calculating the effect of the terms of trade in Tables 1 and 2, use has been made of the total estimated volume of future imports and exports in order to facilitate its inclusion in the balance of payments. The purpose of this deviation from principle is to use the outcome to calculate the balance of payments on current account at current prices. In quantitative terms, however, this difference is insignificant.

is dependent upon the increase accepted in the G.D.P. This target figure cannot therefore be decreased at any given rate of growth,[10] but it seemed reasonable to accept that one of the aims of policy for each accepted growth rate during 1965 should have been first to bring about a relative retardation in the rate of increase of private consumption expenditure in order to avoid any further loss of gold and foreign exchange reserves during 1965.

42. Since the contractual capital repayments which South Africa will have to make abroad during 1965, were put at R54 million on the 30th September, 1965,[11] and since any net capital inflow during 1965 (excluding contractual capital repayments) is an uncertain development on which we cannot depend, it was felt that a surplus of about R60 million on the current account of the balance of payments during 1965 would be a reasonable policy aim. Given this surplus, and after deducting current transfers from it and adding the total net capital formation, we are left with the required amount of net national saving necessary to reach the surplus aimed at on the current account of the balance of payments under the accepted growth rate. Thereupon private consumption expenditure is calculated as a remainder item, i.e. by deducting the already known net national saving and consumption expenditure of the Government from the net national income.

43. In the case of the 4.9% rate of growth for 1965, private consumer spending, as calculated above, constitutes 71.61% of the net national income in comparison with 72.62% in 1964. The calculated figure provides for an increase of 0.95% in real private consumption expenditure per caput above the figure for 1964. This was accepted as satisfactory. For the years from 1965 onwards provision was made for an increase in real private consumption expenditure per caput at a constant annual rate of 2.5%. This means that total private consumption expenditure will constitute 72.75% of net national income in 1970.

44. In regard to the 5.4% growth rate it was found that, if the surplus target of R60 million on the current account for 1965, which is the same as in the case of the 4.9% growth rate, is to be maintained for this alternative, this will mean that private consumption expenditure will have to decrease to less than 71.40% of net national income. Although it will perhaps be possible to keep private consumption expenditure for a specific year below 71.40% by means of traditional Government policy measures, it was accepted for the purposes of the E.D.P. for 1965/70 that this is the minimum percentage on which private consumption expenditure should be projected. It is considered that, in order to reach this low level, fairly strong pressure will in the normal course of events have to be exerted by means of the traditional instruments of Government policy.

45. Private consumption expenditure for the 5.4% growth rate for the years 1965 and 1966 has consequently been put at the minimum level of 71.40% of net national income. As a

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10) It is of course possible to accept a lower rate of growth.

11) These compulsory capital repayments for the years up to 1970 have been increased since the 30th of September, 1965, owing to new loans abroad.

result of this, the surplus on the current account of the balance of payments has changed to R2 million in 1965 and R66 million in 1966. Private consumption expenditure per caput is therefore estimated to be 1.09% higher in 1965 than in the preceding year, and 2.72% higher in 1966 than in 1965. These percentages were accepted as satisfactory. A preliminary calculation showed that, if private consumption expenditure had been kept at 71.40% for all the other years until 1970, the result would have been exceptionally high surpluses on the current account of the balance of payments. Provision was therefore made for an increase to a percentage of 72.25% of net national income by 1970, and the private consumption expenditure per head of the population implied by this figure for 1970 was then determined. In order to calculate total private consumption expenditure for the intermediate years, provision was made for a regular annual increase in private consumption expenditure per caput from 1967 (seen in relation to 1966) to 1970 (seen in relation to 1969). The result was that private consumption expenditure per caput increased by 2.97% per annum from 1967 to 1970.

46. The percentages to which private consumption expenditure as a percentage of net national income increases in 1970 for each of the 4.9% and 5.4% growth rates respectively, are to a certain extent an arbitrary selection. Judging from the course followed by these series in the past, it would appear that an average level of about 72.75% is more than adequate,[12] even if private consumption expenditure is allowed to developed with complete freedom, i.e. if no Government measures exist to combat it. This is also the level to which private consumption expenditure was allowed to increase in 1970 for the 4.9% growth alternative. In the case of the higher growth rates, balance-of-payments and liquidity considerations do not allow private consumption expenditure to increase to this level, but an attempt is nevertheless made in the Programme to raise consumption as near as possible to this level as circumstances permit. Owing to the margin of uncertainty associated with this ratio for any specific year, it does not necessarily follows that the level of 72.75% provided for in 1970 for the 5.4% growth rate will imply a deliberate curtailment of private consumption expenditure.

47. In regard to the 5.9% growth rate it was found that, even if the capital account of the balance of payments were in equilibrium, the fixing of private consumption expenditure at the accepted minimum level of 71.40% during 1965 and 1966, would not result in sufficiently favourable balances on the current account of the balance of payments to prevent a decrease in South Africa's gold and foreign exchange reserves during the two years as a whole. The maintenance of the assumed minimum level of private consumption expenditure has therefore also been accepted for 1967 and 1968 in order to make it possible for surpluses to be obtained on the current account of the balance of payments which can assist in neutralising any possible decrease in South Africa's gold and foreign exchange reserves experienced during the preceding two years.

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12) That is, the average seen over a few years. As a result of irregular fluctuations in this relation from year to year, it is of course possible for this relation to increase above 72.75% for an individual year.

48. For the years 1969 and 1970 a gradual increase in the level which private consumption expenditure forms of net national income, was accepted for two reasons. The first reason was that by the end of 1968 private consumption expenditure would already have been kept at the minimum level of 71.40% for four years, and that an increase at that stage would presumably be highly advisable in order to promote the maintenance of a growth rate of 5.9%. The second reason was that according to estimates, it would be possible at that stage to allow a gradual increase in the level of private consumption expenditure and at the same time show satisfactory balances on the current account of the balance of payments.

49. It was accepted that by 1970 private consumption expenditure would constitute 71.80% of net national income, and provision was therefore made for a gradual increase to this height from the level of 71.40% in 1968. These percentages also meant that resultant surpluses were found on the current account of the balance of payments, which were considered to be of an acceptable order of magnitude from the point of view of the foreign capital repayments to which South Africa is bound contractually, as well as from the point of view of the liquidity requirements for financing South Africa's estimated future production.

50. In conclusion it can be said that the data for the 5.9% growth alternative describe the estimated broad lines of economic development if private consumption expenditure is deliberately and strongly kept down to the minimum level maintainable in practice during the first four years of the E.D.P. period. A considerable decrease in South Africa's gold and foreign exchange reserves will nevertheless take place during the first three years unless a significant capital inflow occurs.[13] It will be possible to allow a certain increase in the percentage level of private consumption expenditure during the last two years of the E.D.P. period, but since very little latitude is left in regard to the balance of payments, any tendency on the part of private consumption expenditure to increase more rapidly than is allowed in Table 1, will have to be checked immediately. Any significant capital inflow in this situation will lessen the necessity of strongly curbing private consumption expenditure and from a monetary point of view will greatly facilitate the maintenance of an annual 5.9% growth rate.

(ii) Public consumption expenditure

51. Public consumption expenditure is also one of these items which are difficult to estimate accurately in advance. Defence expenditure, for example, has shown a marked increase in recent years, and the future level of such expenditure will be largely determined by the course of international political developments. In this connection it has been assumed that the high level of defence expenditure shown in the 1965-66 budget will be more or less maintained during the rest of the period covered by the E.D.P. The calculations are based furthermore on the assumption that real Government consumption expenditure (excluding that on defence) will show a growth rate of 5.3% per annum during the E.D.P. period. This

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13) This does not refer to a net capital inflow but merely to an inflow of capital which is sufficient to compensate for the capital repayments to which South Africa is bound contractually.

assumption seemed realistic in the light of experience in the past and also in view of the Government's policy in regard to salary and wage increases to its employees.

52. From Table 1 it will be seen that the level of public consumption expenditure (in contrast with public capital expenditure) differs only slightly for the various growth alternatives. It has been assumed that the administrative expenditure (including that on internal security), as well as social consumption expenditure will be the same for the various growth alternatives, but that the expenditure on economic services will vary, although not in direct proportion to the growth of the economy.

53. Public consumption expenditure as a percentage of net national income increases for the 4.9% growth rate alternative from 13.70% in 1964 to 15.29% in 1965, after which it gradually decreases again to 14.86% in 1970. The pattern is more or less the same in the case of the other two growth alternatives, except that the percentage decreases to 14.55% in 1970 for the 5.4% growth alternative and to 14.30% in 1970 for the 5.9% growth rate.

(iii) Net national savings

54. The net national savings are obtained by deducting the private and public consumption expenditure from the net national income. As a result of the relative increase in these two items of expenditure, the net national savings decrease from 13.67% in 1964 to 12.39% and 13.20% of the net national income in 1970 for the 4.9% and 5.4% growth rates, respectively. For the 5.9% alternative the figure increases to 13.90%, which means that relatively more savings are needed for the financing of investment as well as for the attainment of a satisfactory surplus on the current account of the balance of payments.

(iv) Net capital formation

55. In regard to the pattern of net capital formation, Table 1 shows that net fixed capital formation increases at a relatively slow rate for the 4.9% growth alternative, in which case the 1970 level is only 16.6% higher than the 1964 figure. For the other growth rates net fixed capital formation increased more rapidly, being 28.0% and 39.5% above the 1964 level in 1970 for the 5.4% and 5.9% growth rates, respectively. The total gross fixed capital formation, expressed as a percentage of the G.D.P., amounts to 19.72% for 1964 and 19.27% for 1970 for the 4.9% growth alternative. For the 5.4% growth alternative, the figure is 19.95% of the G.D.P. in 1970, and for the 5.9% growth alternative 20.58%.

56. The slow increase in net fixed capital formation between 1964 and 1970 for the 4.9% growth alternative mentioned above must be attributed first of all to the relatively high level of capital formation in 1964 when the growth rate of the economy was much higher than the hypothetical 4.9%, and secondly to the fact that only a low level of capital formation is needed to realise a growth of 4.9%, since the assumed increases in the G.D.P. are not substantial.

57. The volume of capital formation needed is determined by the growth of the economy which is measured here by the increases in the G.D.P. The amount of net fixed capital formation required for the different growth rates was calculated by the application of marginal

capital-output ratios of 1.90, 1.875 and 1.85 for the three alternative growth rates, respectively. Since the capital-output ratio is a relation between real net fixed capital formation and increases in real G.D.P., it follows that, by the application of this ratio, real net fixed capital formation is determined, this not being the same as the net fixed capital formation as set out in the national accounts. The reason for this is that in the national accounts the depreciation which has to be deducted from gross fixed capital formation in order to arrive at net fixed capital formation, consists of amounts written off at the original prices paid for the assets concerned. To coincide with the national accounts, however, the amount of net fixed capital formation was obtained by calculating, first of all, the real net fixed capital formation. Real depreciation was then determined and added to real net fixed capital formation in order to arrive at gross fixed capital formation. Depreciation was calculated according to the national accounting concepts on the basis of the above-mentioned real gross fixed capital formation. This was deducted from real gross fixed capital formation in order to obtain the net fixed capital formation, this procedure being in agreement with national accounting concepts. The result of these calculations is that the marginal capital-output ratios implied by the figures published in the E.D.P. are somewhat higher than the ratios of 1.90, 1.875 and 1.85 for the three growth alternatives, respectively, on which the calculations were actually based. The ratios implied for the different years of the E.D.P. period vary from 2.199 to 2.078 in the case of the 4.9% growth rate, from 2.139 to 2.015 for the 5.4% case, and from 2.085 to 1.970 for the 5.9% growth alternative.

58. The use of slightly lower marginal capital-output ratios at the higher growth rates can be justified inter alia by the fact that residential construction, which has an exceptionally high marginal capital-output ratio, tends, at a higher rate of economic development, to become less important as a percentage of total investment. Another fact is that a more rapid rate of growth will normally result in substantial capital investments being fully utilised much earlier, and furthermore that certain capital formation by the Public Sector, as for example in schools, hospitals, administrative buildings, etc., does not increase at the same rate as the G.D.P. in the event of an increase in the rate of economic growth. If capital formation in residential construction for the future is determined separately on the basis of development in the past, and of population growth, and, if capital formation in the other sectors is determined with the aid of marginal capital-output ratios which exclude residential construction, then amounts of capital formation are arrived at which are even lower than those calculated by using the implied lower capital-output ratios at the higher growth rates.

59. Total capital formation of course consists of fixed capital formation and changes in national inventories. The level of inventories is closely bound up with the economic activities in a country, but changes in inventories are subject to considerable annual fluctuations. It is therefore very difficult to estimate future changes in inventories. The figures for the changes in inventories given in Table 1 should be seen as normal expansions in inventories which can be expected to accompany the growth in the economy. No provision has therefore been made for short-term fluctuations.

(v) The balance on the current account of the balance of payments

60. The balance on the current account of the balance of payments (excluding current transfer payments and receipts abroad) is determined basically by the total means at the disposal of the inhabitants of a country in relation to their total spending. This comparison can be drawn by comparing total net capital formation plus Government and private consumption expenditure on the one hand with total net national income on the other. It can also be done, however, by comparing net national savings and net capital formation.

61. The balance on the current account of the balance of payments before and after transfer payments vis-à-vis foreign countries have been taken into account, is also shown in Table 1. For the year 1970 the balance on the current account for all three growth rates shows surpluses which vary between R59 million and R63 million.

62. The balance for the 4.9% growth rate changes from a deficit of R56 million in 1964 to a surplus of R60 million in 1965, and R95 million in 1966, after which it gradually decreases to R59 million in 1970. The reason for this decrease is that at this rate of growth a higher level of private consumption expenditure can be allowed in the later years. The balance for the 5.4% growth rate shows a small surplus of only R2 million in 1965, while a deficit of R44 million is indicated for the 5.9% rate for the same year. Thereafter it changes to surpluses which vary between R66 million in 1966 to R62 million in 1970 for the 5.4% growth alternative, and from R17 million in 1966 to R63 million in 1970 for the 5.9% growth rate. The balance on the current account for the 5.4% alternative therefore seems sufficient for the realisation of this growth rate, but the total contractual capital repayments to which South Africa is committed during the E.D.P. period, exceed the estimated surpluses on the current account of the balance of payments by more than R160 million for the 5.9% growth rate. Even if the capital inflow during the E.D.P. period were sufficient to balance this outflow, however, the accumulation of gold and foreign exchange reserves arising from the favourable balances on the current account of the balance of payments would presumably only serve as basis for the internal creation of an amount of monety which would imply a decline to below 30% in the quantity money and near-money as a proportion of the G.D.P. The maintenance of a 5.9% growth rate will present problems from a liquidity point of view even if the capital account of the balance of payments is in equilibrium. This growth rate will be impossible if any net capital outflow is to take place during the E.D.P. period as a whole.

(2) Foreign trade and the balance of payments

63. As has already been mentioned, the balance on the current account of the balance of payments is determined mainly by the course of the net national income and its expenditure. For the estimation of the individual items of the balance of payments, the balance on current account shown in Table 2 is therefore given. In order that the balance on the current account, which was expressed in current prices, might be converted into constant prices, the effect of the change in the terms of trade was taken into account again. This step was necessary because the amounts in respect of imports and exports, as well as of the other items in the balance of payments, were expressed in 1964 prices.

(a) Trade Account

64. The volume of commodity imports depends to a large extent on the trend of the gross domestic product. During the past ten years, imports, as a percentage of the gross domestic product, have shown a downward movement. According to the figures in Table 2, this trend will continue. For the calculation of the volume of future imports, a subdivision of the latter was made into the main components. A distinction was drawn between imports of intermediate goods and services; capital goods; final consumption goods and imports for the Government. In the case of intermediate goods and services a further distinction was drawn between the main sectors of the economy. It was found in the case of the manufacturing sector, which is the largest importer of raw materials and components in this group, that its imports as a percentage of local production declined from 14.5% in 1958 to 12.4% in 1963. This decrease was also experienced in the agricultural, mining and services sectors. It was assumed that this decline would continue in the future, and by estimating on this assumption what percentage of production imports would constitute in 1970, imports of intermediate goods and services were determined for that year. In regard to imports of capital goods, this item, as a percentage of capital formation in respect of machinery, showed a decrease from 62.4% in 1958 to 51.3% in 1963. In the case of consumption it was found that imports of final consumption goods as a percentage of total private consumption expenditure also decreased, namely from 7.9% in 1958 to 6.2% in 1963. On the assumption that these declining trends would also continue in these groups of imports, imports of capital goods and final consumption goods for 1970 were calculated on the same basis as for intermediate goods and services. Government imports were determined for 1970 by taking into account the pattern of such imports in the past and also the expected future development.

65. From the foregoing it is clear why total imports as a percentage of the G.D.P. have shown a downward movement during the past few years. The amount in respect of imports for 1970 was calculated by taking into account the percentage of the G.D.P. constituted by total imports, as well as the development in the respective components of such imports. Imports as a percentage of the G.D.P. consequently show a decline from 20.9% in 1964 to 16.8% in 1970 for the 4.9% growth alternative, and to 17.0% and 17.3%, respectively, for the 5.4% and 5.9% growth rates. As a result of the fact that, inter alia, relatively more capital formation and therefore more imports are necessary in the case of the higher growth rates, imports constitute a slightly higher percentage of the G.D.P. as the growth rate rises.

66. Future exports will to a large extent be influenced by the accessibility and the development of foreign markets. It is nevertheless, felt that it would be possible, with a reasonable effort, to attain the level of exports shown in Table 2 and initially estimated as s a balancing item in order to arrive at the given balance on the current account. These export figures may be regarded as minimum targets and must at least be realised if the development of the current account on the balance of payments for the different growth rates is not to be less favourable than indicated in Table 2. According to the export figures given in Table 2, it is

estimated that exports must increase by 3.5%, 4.5% and 5.7% p.a. for the three growth rates of 4.9%, 5.4% and 5.9%, respectively. Although this increase is larger than that planned for in the first E.D.P., owing mainly to the low level of exports in the base year 1964, it is still lower than the growth in exports experienced by South Africa during the period after the war. This substantial growth during the post-war period was made possible by the fact that exports were at a low level during the base years, i.e. during the first few years following World War II. This high rate of exports cannot therefore necessarily be expected to be maintained during the E.D.P. period. Since 1956/57 the volume of exports has in fact increased much more slowly than during the preceding period, and this situation will presumably continue during the period covered by the development programme.

67. The gold production estimated for 1970 shows an increase of 12.4% over the figure for 1964. In view of the relatively slow increase in the estimated gold production, which is based on estimates obtained from the Chamber of Mines, commodity exports will of course have to increase more rapidly than would have been necessary if the rapid increase in gold production during recent years could have been maintained.

(b) The services account

68. South Africa's foreign investments are not very considerable. The factor payments received from abroad, as indicated in the balance of payments for 1964, were, for example, only R57 million, as compared with factor payments made abroad to the sum of R269 million. Factor payments made abroad consist largely of dividends and interest on foreign capital invested in South Africa and, to a lesser extent, of payments to foreign labour working in South Africa. It is expected that, as a result of developments in the former Federation of Rhodesia and Nyasaland where South Africans have most of their foreign investments, factor receipts will increase only slightly, being put at only R62 million for 1970. On the other hand, provision is made for an increase in factor payments abroad, mainly as a result of higher returns earned on foreign capital already invested in South Africa. A major part of the profits of foreign companies in South Africa is not transferred overseas but usually reinvested in this country. This annual reinvestment (which is not shown in the balance of payments at all) apparently tends to increase more than proportionately when the general rate of growth rises. Factor payments made abroad are therefore expected to increase at a much slower rate than the general economic growth between 1964 and 1970, the advance amounting to only 1.3%, 1.5% and 1.7% per annum for the growth rates of 4.9%, 5.4% and 5.9% respectively.

69. The receipts for non-factor services consist of revenue from a variety of services rendered to foreign countries. The most important items included here are transport and the insurance of goods and persons, as well as the tourist traffic. It is estimated that the total receipts under this item will increase by 3.5% p.a. between 1964 and 1970 for the 4.9% growth rate, and that they will be close to the 4.9% level for the other two rates of growth. The main item included in the payments for non-factor services is freight and insurance on imported goods. These payments are, of course, closely associated with the level of imports, which, as has already been shown, form a declining percentage of the G.D.P. It is estimated that the total

payments for non-factor services will increase by 15.1% from 1964 to 1970 for the 4.9% growth rate, and by 17.8% and 20.5% for the 5.4% and 5.9% growth alternatives, respectively.

70. The last item estimated for the balance of payments is transfer payments to, and receipts from, foreign countries. This item comprises receipts and payments in consideration of which no goods or services have been provided, but which nevertheless do not fall under the capital account. The most important of these items are taxes received (or paid) on dividends on foreign investments, and funds brought into the country by immigrants or taken out by emigrants. Since 1950 South Africa's net foreign transfer receipts have increased sharply. Although net transfers are subject to considerable fluctuations, it is estimated that such transfers will continue to rise from R27 million in 1964 to R38 million in 1970 for the 4.9% growth alternative. For the other two growth rates the amount is put somewhat higher than for the 4.9% growth alternative.

(c) Balance on the current account of the balance of payments

71. To sum up, it may be said that the surplus on the balance of trade, i.e. the difference between commodity exports (including gold) and imports, will be higher in 1970 than in 1964 for all three growth rates, but that in 1965 and 1966 it will be lower for the higher growth rates than for the 4.9% alternative. The reason for this is of course that at the higher growth rates the level of real imports is higher than at the lower growth rates, and furthermore that a smaller volume of products is available for export owing to the local demand for them. The economy becomes less dependent on imports as the growth in the G.D.P. is maintained, and even more may be exported during the latter years of the E.D.P. period, with a consequent improvement in the balance of trade. As in the past, the factor and non-factor services in the balance of payments show a deficit which increases still further between 1964 and 1970.

72. The result of these developments is that for the 4.9% growth rate the balance on the current account of the balance of payments changes from a deficit of R56 million in 1964 to a surplus of R60 million in 1965 and R95 million in 1966, after which the surplus gradually decreases to R59 million in 1970. For the 5.4% growth rate the balance on the current account of the balance of payments changes to a surplus of R2 million in 1965, and R66 million in 1966, after which it fluctuates around this level until an amount of R62 million is reached in 1970. In the case of the 5.9% growth rate there will in 1965 still be a deficit of R44 million which then changes to a surplus of R17 million in 1966, after which the surplus steadily increases to R63 million in 1970. The fact that the surpluses at the higher growth rates are low initially and later rise to a higher level, must be attributed inter alia to the fact that private consumption expenditure increases more slowly than the national income.

(3) Production and the demand for labour in the four principal sectors of the economy

(a) Contributions of the principal sectors to the gross domestic product

73. The estimates of the expected demand for labour in each of the four principal sectors of the economy were based on the expected course of the contributions of each of these

principal sectors to the gross domestic product and the expected course of the contributions to the real gross domestic product per person employed in each sector. The four principal sectors distinguished are Agriculture, including Forestry and Fishing; Mining and Quarrying; Manufacturing, including Electricity Generation, Water Supply, and Construction; and the Services Sector.

74. Unlike the figures in the rest of the E.D.P., all the figures in this section relate to the Republic only. The reason for this is that this section is concerned mainly with a determination of the implications of the E.D.P. for South Africa in respect of employment and unemployment, and that it is therefore not desirable to include the British High Commission Territories in this regard. The production and expenditure of these territories are so small in comparison with those of the Republic that it would not make much difference whether or not they were included in the national accounts. It was therefore felt that, in order to keep the analysis of national income and expenditure in line with South Africa's national accounts as published by the South African Reserve Bank, the expenditures of these territories could be included with those of the Republic without having any marked effect on the national income or on the various components of national expenditure. In the case of labour statistics, however, the inclusion of the British High Commission Territories would indeed have a significant effect on the Republic's figures. The G.D.P. presented in conjunction with labour statistics was therefore adjusted to exclude these territories. South West Africa was also excluded from the figures in respect of the G.D.P. presented in Table 3, the reason being that the necessary labour statistics were lacking.

75. The G.D.P. given in Table 3 was evaluated at factor cost, in contrast with the market price evaluation used in Table 1. In order to obtain the G.D.P. at factor cost, indirect taxes have to be deducted from the G.D.P. at market prices, whereas subsidies have to be added.

76. From Table 3 it appears that the contribution of the Manufacturing Sector to the G.D.P. shows the highest increase of all sectors. For the three over-all growth rates of 4.9% 5.4% and 5.9% the contribution of the Manufacturing Sector to the G.D.P. increases by 5.9%, 6.6% and 7.5% per annum, respectively. As a result of this vigorous growth of the Manufacturing Sector, its percentage contribution to the G.D.P. increases from 29.9% in 1964 to 31.5%, 32.1% and 32.6% in 1970 for the 4.9%, 5.4% and 5.9% growth rates respectively.[14] It is foreseen,

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14) These percentages are considerably higher than those shown in the E.D.P. for 1964-1969. The factories of the public sector such as the Mint, breweries, etc., are classified under the Services Sector in the official statistics, and were consequently classified under the same sector in the E.D.P. for 1964-1969. In order to obtain the contributions made to the G.D.P. by the four principal sectors on a functional basis for the present E.D.P., the contributions to the G.D.P. by these factories had to be subtracted from those of the Services Sector and added to those of the manufacturing sector. Consequently, the percentage contribution made to the G.D.P. by the Manufacturing Sector is higher, and that of the Services Sector lower, than the percentages shown for these sectors in the E.D.P. for 1964-1969.

therefore, that the manufacturing industry will still be the principal dynamic sector during the period covered by the programme. In the E.D.P. for 1964-1969 it was estimated that the contribution to the G.D.P. by this principal sector would grow at the rate of 7.0% per annum for an overall growth rate of 5½% per annum. Unlike the position in 1963, the Manufacturing Sector was characterised by greater utilisation of its production factors in 1964, and it is therefore expected that the contribution to the G.D.P. by this principal sector will grow at a slightly lower rate from 1964 onwards.

77. The Services Sector shows the second highest growth between 1964 and 1970. The estimated contribution to the G.D.P. by this sector for the various rates of growth will increase only slightly faster than the overall rate of economic growth and therefore will not differ materially from the corresponding growth rates in the E.D.P. for 1964-1969. Consequently there is only a slight change in the percentage contribution to the G.D.P. by this principal sector over the programming period.

78. The contribution of the Agricultural Sector to the G.D.P. increases by 4.4%, 4.5% and 4.7% per annum for the three overall growth rates of 4.9%, 5.4% and 5.9%, respectively. These growth rates appear to be high if account is taken of the fact that the average annual growth rate in the contribution to the G.D.P. by this sector was approximately 3.8% over the period 1948-1949 to 1964-1965. If a long-term average growth potential of 3.8% per annum is accepted for this section, then its contribution to the G.D.P. will have to grow at the above-mentioned higher rates from 1964, a bad agricultural year, in order to attain, by 1970, that contribution to the G.D.P. which is indicated by the extrapolation of the trend observed between 1948-1949 and 1964-1965. Although the contribution of the Agricultural Sector to the G.D.P. increases in absolute terms over the programming period, its percentage of the total G.D.P. will decline from 9.8% in 1964 to 9.6%, 9.3% and 9.1% in 1970 for the growth rates of 4.9%, 5.4% and 5.9% per annum, respectively. The percentage of the G.D.P. contributed by Agriculture has tended to decline in the past, mainly as a result of the increase in the contribution of the Industrial Sector, and since a decline of this nature is normal in the process of economic development, it is assumed that this trend will continue.

79. The contribution of the Mining Sector to the G.D.P. shows the lowest growth of the four principal sectors distinguished. From the analysis of the balance of payments it has already appeared that the production of gold is estimated to increase by only 12.36%, that is by 1.96% per annum, over the period covered by the E.D.P. On account of the dominating role played by the gold mines in the Mining Sector, the percentage contributed to the G.D.P. by the Mining Sector therefore declines from 12.6% in 1964 to 10.8%, 10.7% and 10.6% in 1970 for the 4.9%, 5.4% and 5.9% growth alternatives, respectively.

(b) <u>The Labour Market</u>

(i) <u>The population of the Republic</u>

80. Before employment in the principal sectors of the economy is considered, the estimates of the total population and the economically active population will be discussed so

that employment, that is the demand for labour, can eventually be compared with the supply of labour, as indicated by the economically active population.

81. The population estimates given in Table 3 are to a large extent based on the population projections made by Dr. L.T. Badenhorst for the Natural Resources Development Council on the basis of the preliminary results of the 1960 population census. A number of adjustments have been made to Dr. Badenhorst's projections, the most important of these being the following : the estimates in Table 3 were based on the final instead of the preliminary results of the 1960 population census; the actual net immigration of Whites between 1960 and 1964 was taken into account; a net immigration of 20,000 Whites per annum was assumed from 1964 onwards; and no provision was made for a net emigration of foreign Bantu males. The last-mentioned assumption differs somewhat from that made in the E.D.P. for 1964-1969 because such uncertainty exists in regard to the extent of repatriation that this factor has for the time being been left out of account in the present E.D.P.

82. It will be observed from Table 3 that the population estimates for 1970 are the same for all three growth alternatives. It could be argued that the size of the population is indeed influenced by the growth rate of the economy as a result of changes in the rate of increase in the population, or as a result of changes in the level of immigration. It was not practicable, however, to allow for the possible effect of these factors. If the net immigration of Whites is greater or less than 20,000 per annum, White unemployment will be correspondingly higher or lower than is shown in Table 3.

83. The economically active population of a country includes all persons who desire to work. This consequently includes not only persons actually working, but also those who are unemployed. The economically active population is therefore closely bound up with the total population of a country and in particular with the age composition of the population and the extent to which persons enter the labour market. In the determination of the economically active population for 1970, separate calculations were made for the males and females of each of South Africa's four racial groups. It will also be observed that the estimates of the economically active population for 1970 are the same for the three alternative rates of economic growth. It may admittedly be asserted that the overall growth rate and the demand for labour will influence the extent to which persons enter the labour market. At a high growth rate, for example, relatively more women may enter the labour market, or pensioners may continue to work longer. It is also possible that scholars may leave school earlier or not enter a university because of more attractive offers of employment. Quantitative adjustments to allow for such possibilities are so arbitrary, however, that these possibilities have not been taken into account in the estimates of the labour force. In the interpretation of the figures in Table 3, these assumptions should therefore be borne in mind, especially since a continuation of the trend, based on the population censuses of 1951 and 1960, is assumed in regard to the decline in the number of economically active White, Coloured and Bantu males - expressed as a percentage of their respective total population groups, while the opposite has been assumed for Indian males and for females of the four different racial groups. The decrease in the number of economically

...ative White, Coloured and Bantu males, expressed as a percentage of their respective total ...population groups, can be explained by the growth in the school population relative to the ...total population of these three population groups. It was found, for example, that the number ...of White males undergoing educational training, as a percentage of the total White male po...pulation, increased by 3% between 1951 and 1960. Similar phenomena were found in respect ...of Coloured and Bantu males. In the case of White males this percentage increase is proba...bly due to increasingly longer military and educational training, and in the case of Coloured ...and Bantu males to more educational facilities resulting in a larger number of school-going ...children. The increase in the percentage of economically active Indian males is so small ...that it hardly affects the calculations although it was taken into account. According to in...formation, the ratio of Indian males undergoing educational training to the total Indian male ...population has apparently remained constant over the past few years. In the case of females ...of the four racial groups who are still largely unexploited as a source of labour, entry into the ...labour market as a result of the strong demand for labour is such that it overshadows the op...posite tendency for more females to undergo educational training or to remain longer at school. ...The result is that the economically active females are increasing as a percentage of their re...spective population groups. From the figures in Table 3 for the economically active population, ...it appears that the economically active Whites and non-Whites will increase by 2.0% and 2.3% ...per annum respectively, between 1964 and 1970.

(ii) The demand for labour

84. The demand for labour in the four principal sectors for the base year 1964 was ...calculated from the estimated demand for labour in the separate sectors included in each prin...cipal sector. The demand for labour in 1964 in each sector was taken as being equal to the ...1964 employment figures for that sector and is either the annual average of the actual employ...ment figures for that sector as published by the Bureau of Statistics, or, in the case of a few ...exceptions, an estimate of the average employment in that sector during 1964. The future de...mand for labour is determined largely by the increase in production. The demand for labour, ...however, grows at a slower rate than production because the volume of production per worker ...also increases in course of time. (The increase in the volume of production per worker is here ...regarded as the increase in the real value added per worker. This can be brought about by ...various means such as an improvement in production methods, increased mechanisation, or ...increased labour productivity.) In order to estimate the total demand for labour, separate esti...mates were first made for each of the four principal sectors by dividing the estimated future ...contributions of each principal sector to the G.D.P. by the expected future contributions to the ...G.D.P. per worker for that principal sector. The total of the sectoral demand for labour (32 ...sectors being distinguished) agrees with the total demand calculated for the four principal sec...tors in the case of the overall growth rate of 5.4% per annum.

85. According to Table 3, the number of Whites employed in Agriculture will gradually ...decline from 1964 to 1970. This downward trend is a continuation of the decrease in the number ...of Whites engaged in Agriculture, as reflected in the population censuses of 1951 and 1960.[15]

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[15] This downward trend has been noticeable since the 1936 population census.

Although the coverage is not exactly the same as that of the population censuses, figures in respect of White taxpayers whose main source of income is from agriculture, show a decrease in employment from 1960 to 1962 at the same annual rate as that implied by the population census figures for 1951 and 1960. The establishment of White farmers on the new irrigation settlements under the Pongola and Orange River projects which would tend to check this downward tendency, was not taken into account above because it is unlikely that they will have any practical effect on the figures up to 1970. Smaller projects which are expected to be completed before 1970, will also have little effect on the estimates because these projects will in all probability merely involve the movement of Whites from uneconomic farms to economic irrigation units. The economically active non-Whites in agriculture (including the Bantu areas) will, however, show a continuous increase in absolute terms from 1964 to 1970, although the percentage which they will constitute of the total working non-White population will reflect a steady downward trend. In so far as the non-Whites are concerned, future estimates are complicated by the large number of Bantu employed in agriculture in the subsistence sector of the economy, as well as by the fluctuation in the number of squatters and seasonal workers from month to month. It is very likely that the abolition of the squatter system and the full-time employment of some of these workers will lead to a decrease in the figure for Bantu classified as economically active in agriculture since most squatters were classified as economically active in agriculture in the 1960 population census. This development will probably be accompanied by a decrease in the number Bantu living on White farms. On the other hand, the development plan for the Bantu Areas provides for the resettlement of Bantu who cannot make a living in agriculture, in towns in the Bantu areas where they can sell their labour in other sectors. This long-term project can therefore result in a slower increase in future in the number of Bantu classified as economically active in agriculture, than the case was in the past. The above developments are not expected to affect the estimates to any great extent during the period covered by this Programme. Although the production of the Agricultural Sector is influenced by the alternative growth rates, it is estimated that the total number of persons employed in this Sector will not be affected by the different growth rates. The increase in production expected at the higher overall growth rates is so small that the increase in productivity implied by a constant demand for labour should be easily attainable at the higher growth rates. The higher productivity can for example, be attained by developing the agricultural subsistence sector in the Bantu areas into an agricultural market sector.

86. For the Mining Sector a decrease in the demand for labour between 1964 and 1970 is foreseen for all three alternative growth rates. The reason for this is that the demand for labour by the gold mines, which dominate this sector will decrease to such an extent that the increase in the demand for labour in the other branches of mining will not be sufficient to compensate for the decline in employment in the gold mines.

87. As a result of the strong increase in production in the Manufacturing Sector, the demand for labour in this sector also shows the highest percentage increase. Between 1964 and 1970 the demand for labour in the Manufacturing Sector rises by 23.3%, 27.2% and 31.3%

for the 4.9%, 5.4% and 5.9% growth alternatives, respectively. Over the same period the corresponding contributions to the G.D.P. by this sector increase by 40.7%, 47.1% and 53.9%, respectively. Provision has therefore been made for a higher production per worker as the rate of growth increases. For the 4.9% growth alternative, for example, the contribution to the G.D.P. per worker (which, of course, is not exactly the same as labour productivity) increases by 2.22% per annum, while it grows by 2.45% and 2.69% per annum at the overall growth rates of 5.4% and 5.9%, respectively. From 1924-25 to 1961-62 the real contribution to the G.D.P. per worker in the Manufacturing Sector grew at an average rate of 2.14% per annum. As a result of improved managerial techniques, greater mechanisation and the tendency to raise Bantu wages during recent years, productivity in the Manufacturing Sector has increased considerably. Over the last five-year period for which comparable information is available the contribution to the G.D.P. per worker in this principal sector increased at an average rate of 3.01% per annum. The figures published for this principal sector in the E.D.P. for 1964-1969 imply an annual growth of 3.44% in the contribution to the G.D.P. per worker for an overall growth rate of 5½% per annum. From 1963 to 1964 the growth in the real G.D.P. was 6.3%, however, instead of 5½%, and manufacturing production increased by 14.70% instead of the target rate of 7.0% set in the first E.D.P. Statistics published by the Bureau of Statistics show that the average number of overtime hours worked per week in this principal sector increased from 1963 to 1964. Furthermore, production capacity was not fully utilised in this principal sector in 1963. A growth of 6.59% in the real contribution to the real G.D.P. per worker from 1963 to 1964 was therefore attained by, inter alia, a better utilisation of the excess production capacity and by the working of longer hours. The vigorous growth in manufacturing production from 1963 to 1964 resulted, however, in the full utilisation of the production capacity in 1964 and also in such long hours being worked that the total number of hours worked per week could not easily be increased. In the present E.D.P., with 1964 as base year, it is therefore expected that the annual increase in the contribution to the G.D.P. per worker in this principal sector will be lower than that estimated in the E.D.P. for 1964-1969. According to the figures in Table 3, the demand for White workers in the Manufacturing Sector increases more slowly than this sector's total demand for labour. If this pattern of demand is realised, the percentage which Whites constitute of total employment in this principal sector, will show a slight fall, namely from 27.6% in 1964 to about 27.1% in 1970. It should, however, continually be borne in mind that the progress made with the policy of decentralisation of industries may well cause the geographical centre of gravity of this increase in Bantu employment in industry to be shifted to the border areas and Bantu areas.

88. The demand for labour in the Services Sector[16], in which an estimated 38.6% of all persons were employed in 1964, also rapidly increases between 1964 and 1970. The percentage increase in the total demand for labour by the Services Sector over the six-year period

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16) The Services Sector comprises private services, e.g. those rendered by doctors, lawyers, etc., as well as Government services, trade, transport and communications.

is 19.6%, 21.1% and 23.3% for the 4.9%, 5.4% and 5.9% growth rate, respectively. As compared with these increases, this sector's contribution to the G.D.P. is expected to increase by 34.7%, 38.1% and 41.4% for the three respective growth rates during the same period. Consequently the real contribution per worker to the G.D.P. in the Services Sector also increases. For the period as a whole this increase is calculated at 12.6% for the 4.9% growth rate and at 14.0% and 14.6% for the 5.4% and 5.9% growth rates, respectively, i.e. at 2.00%, 2.21% and 2.30% per annum, respectively. In the case of this principal sector it is also estimated that the demand for Whites will increase at a slightly slower rate than the total demand for labour. This development is the outcome of the increasing employment of non-Whites in this sector, especially as a result of the development of the border areas and Bantu areas. The proportion of Whites in the total demand for labour in this sector consequently decreases from 31.3% in 1964 to approximately 30.7% in 1970.

89. The result of the developments in the various sectors discussed above is that the total demand for labour increases by 15.0%, 16.5% and 18.2% for the three different growth rates between 1964 and 1970, while the comparable increases in the G.D.P. are 33.5%, 37.4% and 41.4%, respectively. These figures imply that the real contribution to the G.D.P. per person actually employed increases by 2.52%, 2.79% and 3.02% per annum between 1964 and 1970 for the 4.9%, 5.4% and 5.9% growth alternatives, respectively, if the economy as a whole is considered.[17] The proportion of Whites in the total demand for labour remains virtually constant at 20.6% over the whole 6-year period. (The demand for labour in these future years should not be confused with the actual employment position because a shortage of certain types of labour could prevent the realisation of the estimated demand.)

(iii) Unemployment

90. The number of unemployed persons is the difference between the total supply of labour (the economically active population) and the total demand for labour. As has been shown in paragraphs 81 to 83, the future economically active population is estimated on the basis of the population projections and of the expected future trends in the participation in the economic activities by the various racial groups. As defined, the economically active population includes all persons actively engaged in some undertaking, unemployed persons and unclassified persons. It is the policy of the Bureau of Statistics to spare no effort in classifying as many working persons as possible according to the industries and occupations in which they are employed, so that the number of unclassified persons can be reduced to a minimum in the population census results. The only persons shown as unemployed or unclassified are : all males under the age

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17) Owing to the slow growth in the supply of labour, the development plan for the United Kingdom for 1964-1970, "The National Plan", provides for an increase of 3.4% per annum in the contribution to the G.D.P. per worker at a growth rate of 3.8% per annum in the G.D.P. In the plan for the Netherlands, "Centraal Economisch Plan 1964", provision is made for an increase of approximately 3.5% in the contribution to the Gross National Product per person actually employed from 1963 to 1964 at an increase of 5% in the Gross National Product.

of 65 years and all females under the age of 60 years who indicated that they are unemployed, persons in hospitals who specified no occupation or industry, all persons in jails who are not habitual criminals and who did not specify the occupations or industries in which they were previously employed, migratory labourers who indicated that they are looking for employment, and Bantu females who are looking for employment in urban areas unless they are married and have husbands who are employed. The actual working population according to the population census, i.e. persons who are actively engaged in some undertaking, includes all employers and persons working for their own account, all employees working for remuneration, all Bantu peasants in Bantu areas, all Bantu females in Bantu areas who called themselves farmers on the forms if no male is also indicated as a farmer on the same form; all family workers especially on White farms and Bantu peasant farms, all Bantu shown as labourers on the forms of Bantu peasants, migratory labourers who specified their occupations or the industrial sectors of their employers, Bantu females who work for their own account in urban areas, certain persons who were temporally in hospitals and other institutions on the day of the census, and certain persons held temporarily in prisons e.g. persons awaiting trial, etc., who specified the occupations and industries in which they were employed.

91. On the basis of the above classification the following conclusions can be drawn in regard to the economically active population. The estimated number of unemployed Whites shown in Table 3 is presumably higher than the actual number of White persons looking for employment, the reason being that the figures in Table 3 include a number of unclassified persons. These conditions must be borne in mind when unemployment, which is the difference between the supply of labour and the demand for labour, is interpreted. For the purposes of policy decisions on the basis of the E.D.P. changes in the unemployment figures over a period of time rather than the absolute level of unemployment are of material importance and should preferably be used.

92. According to Table 3, altogether 16,600 Whites were unemployed in 1964. This figure is higher than that shown for 1963 in the E.D.P. for 1964-1969. This difference is due to a number of factors. For the E.D.P. for 1964-1969 a net White immigration figure of 20,000 per annum since 1962 was assumed, while the actual net number of White immigrants during 1963 and 1964, which was higher than 20,000 per annum, was taken into account in the estimates of the supply of labour in the current E.D.P. The result is that the supply of White labour in 1964 as shown in the present E.D.P. is at a higher level than that indicated in the previous E.D.P. Furthermore, some double counting occurred in the monthly employment statistics of Mining and Manufacturing, as published in the Monthly Bulletin of Statistics, which were used as a basis in estimating the demand for labour in the E.D.P. for 1964-1969. This double counting of employment has as far as possible been eliminated in the present E.D.P., with the result that the demand for labour in the current E.D.P. is at a slightly lower level than that shown in the previous E.D.P. Consequently, the general level of White unemployment resulting from the above two changes is higher in the present E.D.P. than that shown in the E.D.P. for 1964-1969. The fact that the number of unemployed White persons in 1964 according to the

present E.D.P. is higher than the number of unemployed White persons in 1963 according to the previous E.D.P., must not be interpreted as an actual increase in the number of unemployed Whites. The shortage of White labour experienced in 1964 was, in so far as could be ascertained, greater than the shortage in 1963. The apparent increase in the unemployment figure for Whites between 1963 and 1964 is due to adjustments in the figures, with the result that the figures for the two base years and the two sets of projections are not directly comparable.

93. The number of unemployed Whites in 1964 according to this E.D.P. is also not comparable with the number of unemployed Whites registered with the Department of Labour. According to the figures of the Department of Labour, the average number of registered unemployed Whites was 7,334 in 1964. The unemployment figure for Whites in the E.D.P. includes a large number of unclassified persons.

94. At an average annual rate of growth of 4.9% the demand for labour from 1964 to 1970 increases at a slightly faster rate than the supply of labour, with the result that the total number of unemployed and unclassified persons decreases from 285,500 in 1964 to 260,900 in 1970. This decrease in unemployment according to the E.D.P. criterion can be attributed mainly to the "decrease" in unemployed Whites from 16,600 in 1964 to minus 9,100 in 1970 under the assumption of a net immigration figure of 20,000 Whites per annum from 1965 to 1970. This "decrease" in unemployed Whites really means a growing shortage of White labour. Table 3 also shows that there will be no decrease but rather a small increase of 1,100 persons in the number of unemployed non-Whites over the programming period for the 4.9% growth rate. It is therefore evident that, under the assumptions regarding the supply of labour, sufficient non-White labour will be available to satisfy the demand but that the White labour force will be subject to greater pressure in 1970 than in 1964. It would appear to be possible, however, to increase the quality and quantity of the supply of White labour to such an extent that an average rate of growth of 4.9% per annum could be maintained over the period as a whole, as far as White labour is concerned. Firstly, the present rate of net White immigration is higher than that assumed in the calculations. Secondly, training facilities for Whites are being extended, and opportunities for the training and employment of non-Whites in skilled capacities are being created in accordance with Government policy with a view to their serving their own people in border areas, Bantu homelands and Bantu towns in White areas where the use of Bantu building artisans will release Whites for employment in White areas.

95. Table 3 shows that at an average rate of growth of 5.4% per annum the total demand for labour increases much more rapidly than the supply of labour, with a resultant decrease in unemployment from 285,500 in 1964 to 175,100 in 1970. The figure for 1970 is the difference between 205,700 unemployed non-Whites and an absolute shortage of 30,600 Whites. In 1964 shortages of Whites were experienced in certain occupations. The course of White unemployment from 16,600 in 1964 to minus 30,600 in 1970 shows to what extent the demand for White labour outstrips the supply of such labour under the assumptions in regard to White population growth, immigration and productivity. The White labour force will therefore be under much greater pressure by 1970 than it was in 1964. In order to relieve this pressure on the

White labour force to such an extent that a sufficient supply of White labour will be available for an overall annual growth of 5.4%, efforts to encourage and to aid immigration will have to be maintained and everything possible done, in addition to the measures described in paragraph 94, to raise the productivity of Whites, especially in those sectors where large numbers of Whites are employed. Under these circumstances it is considered that sufficient White labour will indeed be available to satisfy the demand for White labour at an average overall growth rate of 5.4% per annum. At this rate of growth it appears in addition that the number of unemployed and unclassified non-Whites will decrease by the satisfactory figure of approximately 10,500 per annum.

96. For the 5.9% growth alternative the estimated demand for White labour increases by 229,100 persons from 1964 to 1970, while the supply of White labour increases by only 155,400 over the same period. In order to keep the same balance in the supply of, and demand for, White labour the same in 1970 as in 1964, an additional 73,700 White workers will be needed over the programming period, or otherwise the productivity of White workers will have to be increased more rapidly than is foreseen. Since additional White workers can be obtained only through immigration or by means of an increased supply of White South Africans, the net immigration of Whites will have to be approximately 48,500 per annum over the programming period, or otherwise a larger proportion of the White population than has been assumed, will have to enter the labour market. The unemployment figures for non-Whites show a decrease of 141,300 in the number of unemployed non-Whites over the programming period, provided sufficient White labour is available to satisfy the demand for White labour. Given the composition of the demand for, and the supply of, labour, it seems, however, that skilled and semi-skilled labour will constitute such a serious bottleneck that it will not be possible to maintain an average annual rate of growth of 5.9% over the period as a whole.

(4) Capital formation in the principal sectors of the economy

97. It is desirbale to allocate the estimated total amounts of gross and net fixed capital formation (the calculation of which has been discussed in paragraphs 55 to 59) to the various principal sectors of the economy. As has been mentioned, due attention has been given to the relationship between net fixed capital formation and the increase in the G.D.P. in determining the total amount of net fixed capital formation. In the analysis of the principal sectors, attention has consequently also been given to the increase in each sector's contribution to the G.D.P., and the amounts required in respect of net fixed capital formation were determined according to these increases. The total net fixed capital formation was first calculated for the economy as a whole and then allocated to the various principal sectors on the basis of their sectoral marginal capital output ratios. The final values for total and principal sectoral capital formation were found after adjustments had been made to ensure consistency in the figures. As a second step, the depreciation figure was estimated for each principal sector and, finally, the gross capital formation for each principal sector was obtained by adding the depreciation allowance for each principal sector to its corresponding net fixed capital formation. In view of the close relationship between the gross and the net fixed capital formation of each principal sector, they will be discussed together.

(a) Agricultural Sector

98. In the case of the Agricultural Sector the growth rates of the gross fixed capital formation are not found to differ materially for the three alternative overall rates of growth, and they are lower than the growth in total gross fixed capital formation for the economy as a whole. While the gross fixed capital formation for the economy as a whole increases by 29.1% from 1964 to 1970 for the 4.9% growth alternative, the increase for Agriculture is only 18%. For the 5.4% and 5.9% growth alternatives, the total gross fixed capital formation increases by 37.4% and 45.8% respectively, whereas the gross fixed capital formation in the Agricultural Sector grows by only 23.8% and 31.1%, respectively. This means that capital formation in the Agricultural Sector is declining as a percentage of total capital formation. This phenomenon is borne out by past experience. So, for instance, Agriculture's contribution to the total gross fixed capital formation decreased from 13% in 1952 to approximately 8% in 1964, which is to be expected since development occurred first in the Agricultural Sector, and, as development in Manufacturing and Mining gained in importance, capital formation became relatively greater in the other sectors than in Agriculture. The figures given in Table 4 imply that a net fixed capital formation of about R1.50 is required in order to raise the contribution made by the Agricultural Sector to the G.D.P. by R1 per annum. This ratio has been kept constant for all three growth rates.

(b) Mining Sector

99. According to Table 4 the gross fixed capital formation in the Mining Sector will decline by about 28.7% from 1964 to 1970 for all three growth rates. This is due to the fact that by 1964 the large-scale capital formation in the gold mines, which contribute the major share to capital formation in the Mining Sector[18], had largely ceased. Gross fixed capital formation in mining as a percentage of the total gross fixed capital formation decreased from about 17% in 1952 to 9% in 1964. While the gross fixed capital formation required to raise the Mining Sector's contribution to the G.D.P. by R1 per annum was about R2.50 in the past, this ratio can be expected to decline in the next few years. The reason for this is that considerable capital investment is required to develop a mine to the production stage, but that relatively smaller amounts are required to increase the output further.

(c) Manufacturing Sector

100. Gross fixed capital formation for the Manufacturing Sector increases by 14.9% from 1964 to 1970 for the 4.9% grow alternative, while such capital formation increases by

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18) This capital formation by the gold mines represents the requirements of the existing mines as well as of new mines which, to our knowledge, will be started within the next six years. If existing mines should proceed to process low-grade ores as a result of technological advances, it can be expected that a considerable amount of additional capital formation will be required. No provision was made for this possibility in the calculations.

24.4% and 34.7% for the other two growth rates, respectively. These increases are lower than those for which provision was made in the previous E.D.P. for the Manufacturing Sector. The reason for this is that the gross fixed capital formation in the base year 1964, which was associated with a growth in production of about 14.7% in this principal sector, was very high. In this E.D.P. appreciably lower growth rates in manufacturing production are expected for the three growth rates, and capital formation was calculated accordingly. The net fixed capital formation for this principal sector was calculated on the basis that net fixed capital formation amounting to about R1.10 is required to raise the contribution made by the Manufacturing Sector to the G.D.P. by R1 per annum.

(d) Services Sector

101. In the case of the remaining principal sector of the economy, which comprises Private and Government Services, transport, communications, trade and other services, the amount of gross fixed capital formation required for the 4.9% growth alternative increases by 51.9% from 1964 to 1970, and by 61.8% and 70.9% for the 5.4% and 5.9% growth alternatives, respectively. The marginal capital output ratio for this sector is higher than that for the economy as a whole. For the 4.9% growth alternative, for example, this sector needs about R3.52 in net fixed capital formation to increase its contribution to the G.D.P. by R1 per annum. For the growth rates of 5.4% and 5.9% this amount decreases to R3.45 and R3.38, respectively. The decline in the amount of investment required to add R1 to the contribution to the G.D.P. is due to the fact that a large part of the capital formation in this sector is for social and other purposes which are not directly connected with the level of economic activity. For example, the capital to be invested in schools, hospitals, roads, etc., will be influenced to only a small extent by the actual level of economic activity, provided it varies only between certain "normal" limits. Although capital formation in housing is to a larger extent influenced by the level of economic prosperity, even this component of capital formation will not increase to the same extent as the total capital formation estimated for this principal sector in respect of the various growth rates.

(e) Change in inventories

102. In regard to changes in inventories, it has already been stated that this item is subject to considerable annual fluctuations, and that the figures for inventory changes reflected in Table 4 should be seen as the normal annual additions to inventories estimated to be associated with the growth in the G.D.P.

(5) Accounts of the public authorities, and the monetary aspects of the Economic Development Programme.

103. As has already been said, the items in the accounts of the public authorities belong to those magnitudes which can be estimated only with difficulty, since they are to a large extent influenced by autonomous factors. It was nevertheless felt that an analyses should be made, if only to indicate the relationship between these variables and the other magnitudes in the Economic Development Programme. The estimates made for many of the

items in Table 5 may therefore be subject to considerable fluctuations and changes which cannot be foreseen. The attainment of the various global growth rates is not, however, dependent to any great extent on the realisation of the estimates made in this section.

(a) Accounts of the public authorities

104. The accounts of the public authorities may be divided into two sections, namely the current account and the capital account. Although the current account distinguished here corresponds to some extent to the revenue account in the fiscal budgets prepared annually, they are not identical. The accounts of the public authorities used here follow the conseptual framework of the national accounts and therefore differ somewhat from those used in the fiscal budget.

105. The accounts of the public authorities are expressed in constant prices, i.e. in 1964 monetary values. The current revenue of the public authorities is derived from : (i) direct taxes such as income tax; (ii) indirect taxes such as customs duty, excise duty, property taxes, etc.; and (iii) income from property, e.g. profits of Government enterprises. (The subsidies paid by the Government to private individuals and enterprises are generally deducted from the indirect taxes in the national accounts.)

106. A certain relationship was assumed to exist between direct tax receipts and the national income. This relationship and the assumption that the 1964 tax rates would remain unchanged over the programming period were used to estimate direct taxes. Direct tax receipts increase from R659 million in 1964 to R810 million, R833 million and R858 million in 1970 for the 4.9%, 5.4% and 5.9% growth rates, respectively.

107. In the case of indirect taxes, customs duties were estimated separately. It was assumed that there is a correlation between customs duties and imports. The revenue from other indirect taxes was calculated on the basis of the estimated course of consumption expenditure. The income derived from property was estimated on the basis of its development in the past and the projected increase in national income.

108. The public sector's current expenditure on goods and services has already been discussed in paragraphs 51 to 53 and will not be dealt with further here. The other current expenditure of the public sector consists mainly of pension and other transfer payments. The expenditure under these headings is estimated to increase more slowly than the expenditure on goods and services, but at a slightly more rapid rate than the overall rate of growth of the economy.

109. The difference between the current revenue and expenditure of the public sector gives the balance on the current account of the public sector, which, calculated according to national account concepts, was exceptionally high in 1964, amounting to R285 million. If an average rate of growth of 4.9% per annum is realised, the balance will drop appreciably in 1965, especially because of a sharp increase in the consumption expenditure by the Government on goods and services, without any corresponding increase in current revenue. After this date

Government consumption expenditure will increase only gradually, with the result that the favourable balance on the current account will be maintained at a higher level than in 1965. For the other two growth rates the surplus on the current account of the public authorities increases after a sharp initial decline from 1964 to 1965. For the 5.4% growth alternative, the surplus is estimated at R216 million for 1970, and at R244 million for the 5.9% growth rate. It should be borne in mind that these estimates are based on constant tax rates and prices, and this implies that the 1964 tax rates will also apply during future years, but will, of course, not necessarily be the case in actual practice.

110. Estimates of the capital expenditure by public authorities are also shown in Table 5. Capital expenditure for general administrative purposes is distinguished from that on public enterprises, which include the South African Railways and Harbours, the Post Office, Government Motor Transport, the trading departments of local authorities, etc. The capital expenditure of public corporations such as Sasol and Iscor is not included in the public accounts but in the capital formation of the private sector. Capital formation for general administrative purposes, which include the construction of new roads, schools, hospitals, irrigation schemes, etc., increases sharply from 1964 to 1970, rising, for example, by 56.9% for the 4.9% growth alternative. For the other two growth rates, capital formation for general administrative purposes does not rise much above the level estimated for the 4.9% growth alternative. This is due to the fact that it has been assumed that the level of capital formation for these services is more closely related to other factors than to the level of economic activity. The sharp increase for which provision has been made in the estimates, and which remains virtually unchanged for the different growth alternatives, suggests that some leeway has to be made up in providing basic services. Capital formation by public enterprises is, however, to a large extent affected by the level of economic activity, and the estimated capital formation by such enterprises (as reflected in Table 5) increases by 37.1% from 1964 to 1970 for the 4.9% growth alternative. The corresponding percentages for the 5.4% and 5.9% growth rates are 41.9% and 46.7%, respectively.

(b) Financial and monetary aspects

111. Most countries which practise economic planning do not as a rule incorporate the monetary implications of their development programmes in the programmes themselves. The only aspect which generally receives attention, is the desired course of the level of prices over the programming period. In view of the important role played by monetary factors in the process of economic development, however, an attempt will be made to give a general indication of the monetary implications of the E.D.P. The object is purely to establish within the framework of the respective growth rates, whether or not monetary and banking conditions will develop in such a way that the monetary position will exert an influence, as an independent factor, on the process of economic development. No provision has been made for seasonal fluctuations in the demand for credit or in the current account of the balance of payments, or for similar factors which may conceivably influence monetary and banking conditions. As in customary, the monetary authorities will therefore have to influence current banking and monetary

conditions at their own discretion in the light of the prevailing short-term economic and monetary developments.

112. While the magnitudes in the rest of this chapter are consistently expressed at constant prices[19], it is necessary to use current prices for purposes of the monetary analysis. Economic activities are in fact financed at current and not at constant prices. It was therefore necessary to estimate the G.D.P. at current prices and so allow for possible price changes. On the strength of price developments in the past and on the basis of the expected developments in the price structures of South Africa's most important trading partners, it was assumed that the prices at which the G.D.P. will be produced, could safely be allowed to rise by 2% per annum from 1965 to 1970. This annual 2% price increase must not be seen as a target of the E.D.P. but rather as a maximum figure above which an average annual rate of price increase may seriously endanger the economic growth of South Africa. If the actual price movement differs from the assumed increase of 2% per annum, the results of the analysis presented here will have to be adjusted accordingly. This rise in prices may be considered reasonably "safe" from a balance-of-payments point of view, namely to the extent that such a rise in the domestic prices will probably be in line with those of our major trading partners. For the sake of the gold-mining industry and exporters, and for the protection of the standard of living of persons with a fixed income, it would, however, be desirable to limit any possible price increases to the absolute minimum. For the purposes of this analysis it was assumed further that the amount of money and near-money as a percentage of the G.D.P. would decrease from the abnormally high average level of 34.2% in 1964 to 33.0% in 1965, 32.5% in 1966, and 32.0% in the remaining years of the Programme, for all three growth alternatives. This ratio of 32.0% is approximately the average of the percentages over the past ten years. The amount of money and near-monety required to finance the G.D.P. was calculated on the basis of these ratios.

113. According to the calculations in Table 5, the supply of money and near-money[20] required between 1965 and 1970 for a 4.9% growth rate fluctuates between R86 million in 1965 and R239 million in 1970, as compared with amounts of between R99 million and R262 million for a growth rate of 5.4% and between R112 million and R286 million for a growth rate of 5.9%. The supply of money and near-money is generally increased by a similar amount, however, if the gold and foreign exchange reserves increase, so that the actual amount of money which will have to be created, must be reduced by this sum. As a result of the effect of the monetary

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19) The fact that the analysis was made in terms of real prices, means that possible price increases over the programming period have not been taken into account. Through the use of the new base year 1964 in the present E.D.P., price increases during 1964 have therefore actually been taken into account. It is realised that price increases in South Africa, as elsewhere, have an adverse effect on, inter alia, a country's production and marketing potential. Unfortunately, no methods as yet exist for a quantitative determination of this adverse effect.

20) The supply of money comprises the coins and bank notes in circulation outside the banking sector, plus the demand deposits at the Reserve Bank and commercial banks, but excluding the deposits of the Central Government and the provincial administrations. The supply of near-money comprises the fixed and savings deposits at the commercial banks and the deposits at the National Finance Corporation, the discount houses and the Land Bank, excluding the deposits of the Central Government and the Provincial Administrations.

multiplier, the actual creation of money could in practice be appreciably greater than the direct increase in the gold and foreign exchange reserves. For the 4.9% growth alternative the current account of the balance of payments shows a reasonable surplus throughout the programming period, thereby helping to ease banking and monetary conditions. It therefore appears that the various financial institutions will experience no difficulty in financing this growth rate. This conclusion is of course based on the assumption that no net outflow of capital will take place. The favourable liquidity position will naturally be influenced to the extent that such an outflow of capital does take place. In the case of the 4.9% growth alternative the potential supply of money and near-money is higher than the required increase, which means that interest rates will tend to drop and that expansion will be encouraged.[21]

114. In regard to the 5.4% growth rate, the potential supply of money in 1970 appears to be sufficient to meet the required demand. Interest rates will remain reasonably constant, but, should they change, a slight increase is possible.

115. At a growth rate of 5.9% per annum the position is completely different. The deficit on the current account of the balance of payments experienced in 1964 will also continue in 1965, and only after that date will it change to a surplus. This surplus increases slowly up to 1970. Because of these deficits and the smaller surpluses on the current account of the balance of payments, the gold and foreign exchange reserves increase more slowly at this rate of growth than in the case of the other growth alternatives. The extent to which money can be created, is therefore limited, and, unless the monetary authorities are prepared to ease the liquidity position of the financial institutions, interest rates will tend to rise under these circumstances, thereby retarding the rate of expansion. Depending on their evaluation of the position and prospects, however, the monetary authorities will as a rule not resort to the creation of more money than that allowed by the accumulation of gold and foreign exchange reserves, since this could lead to a further deterioration in the balance of payments. From a monetary point of view, a net outflow of capital cannot be afforded at this rate of growth. If account is taken of the capital outflow to which South Africa was already contractually committed by the end of 1964, it would seem that the maintenance of a 5.9% rate of growth must be considered unlikely, unless all capital outflows which take place are more than offset by corresponding capital inflows.

(c) Gold and foreign exchange reserves

116. What would constitute a safe level for the country's gold and foreign exchange reserves in the light of the prevailing economic and political conditions, is open to debate. The building up of the Republic's gold and foreign exchange reserves cannot be an end in itself because such a policy could be carried out only by a decrease in the rate of economic expansion.

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21) Interest rates are of course determined not only by the supply of money and near-money in relation to the G.D.P. but also by psychological factors which play an important role in this connection. Thus in 1964 the supply of money and near-money as a percentage of the G.D.P. was fairly high, but interest rates nevertheless went up.

On the other hand, balance-of-payments crises which would repeatedly necessitate restrictive monetary, fiscal and other measures (such as a tightening-up of import control), thereby giving rise to economic uncertainty, must be avoided. In order to determine the implications of the course of the balance of payments, as shown in this E.D.P., for South Africa's gold and foreign exchange reserves, it must primarily be assumed that these reserves will change in accordance with the estimated course of the balance of payments on current account. The figures for the gold and foreign exchange reserves will have to be adjusted upwards or downwards to the extent to which a capital inflow or outflow takes place. According to the calculations, the reserves increase from R483 million at the end of 1964 to R927 million in 1970 for the 4.9% growth alternative. The reserves are put at R795 million and R665 million in 1970 for overall growth rates of 5.4% and 5.9% per annum, respectively.

117. Up to the present the influence of the capital account of the balance of payments on monetary and banking conditions during the period from 1964 to 1970 has been largely ignored. It cannot, however, be assumed that the capital account will play a neutral role. Table 5 gives an indication of the known foreign capital commitments for the period from 1965 to 1970 to which the Republic has bound itself up to 30th September, 1965. The figure shown does not include private foreign capital commitments which would have to be discharged, and for which the exchange control authorities have not granted specific approval. The higher the domestic growth rate, the better are the prospects of attracting foreign capital. At a growth rate of 5.4% per annum, however, it appears desirable that the capital account should at least play a more or less neutral role in regard to the gold and foreign exchange reserves if any increase in interest rates is to be avoided, while for the maintainance of an average rate of growth of 5.9% per annum a net outflow of capital is out of the question. In fact, a net inflow of capital will be required. It would seem, however, that an annual growth rate of 5.4% could be maintained on the basis of the Republic's own resources, although not without a considerable effort. This does not mean that foreign capital and know-how will cease to be important.

(6) Development of the individual sectors

Introduction

118. Since the presentation of the various sectors largely follows the same pattern, it is hardly necessary for readers who merely wish to gain a general impression of the sectoral part, to read the description of each sector. Readers will be able to form an adequate picture by reading only this introduction (paragraphs 119 and 131) the description of a few sectors, and the part dealing with the sectoral policy implications (paragraphs 344 to 346).

119. As in the first E.D.P., sectoral estimates have been undertaken for 32 sectors of the economy. Although the number of sectors has therefore remained unchanged, it has, however, been necessary to change the classification of activities grouped within certain sectors. In the first E.D.P., for example, electrical contractors were included in the electrical machinery and equipment sector, while they now form part of the construction sector. These revisions have been made in imitation of the changes introduced by the Bureau of Statistics.

Another reason why the sectoral figures in this E.D.P. are not strictly comparable with those in the first E.D.P., is that the statistics relating to the base years are based on preliminary figures or on estimates specially made for the E.D.P. In order to make the estimates in the respective E.D.P.'s comparable, it would have been necessary to change not only the estimates for the base year but also those for the whole programming periods. Although the desirability of comparable estimates is realised, changes at this early stage are unavoidable. As more experience is gained and more reliable statistics relating to the base year become available, the estimates for the respective sectors will also become more comparable in course of time.

120. Unlike the first E.D.P. in which the sectoral implications of all three growth alternatives were analysed, this E.D.P. contains the sectoral implications of only the target growth rate, namely 5.4% per annum.

121. The sectoral calculations are based on total private consumption expenditure, public consumption expenditure, gross capital formation, exports and imports. The totals for these items, as shown in Tables 1 and 2, were disaggregated into the products of the respective sectors, and the production of each sector was then estimated with the aid of an input-output model. The production changes derived from these estimates served as bases for the calculation of sectoral employment and gross fixed capital formation. The sectoral analyses therefore show production, imports, exports, final domestic demand, intermediate demand, gross fixed capital formation and employment for each sector.

122. Production is valued at producer prices (ex factory) and excludes subsidies received and indirect taxes paid on products. Production, like all the other items, is also valued at constant 1964 prices, and mutations therefore show changes in volume between 1964 and 1970. The figures for production are based on the industrial censuses, of the Bureau of Statistics and are equal to the gross value of output, i.e. they comprise the outputs of all establishments within the specific sector. Thus, when an establishment uses raw materials or components which it buys from another establishment within the same sector, the production figures for the sector will then include a certain amount of double counting. Double counting occurs in most sectors but is more important in some sectors than in others. Certain establishments produce a variety of products which should in reality be classified as products of some of the other sectors, but, since it is sometimes difficult to separate the activities of an establishment, its total output is usually included in the sector under which the greatest part of its output is classified. The production figures shown for each sector therefore to some extent include products which should have been classified under other sectors but which could not be so classified owing to lack of information.

123. The imports shown for each sector represent the importation of products similar to those produced by the sector concerned, and not the imported raw materials, components or machinery used by the sector, except in so far as these products are also products of the sector in question. The table for the textile sector, for example, shows imports amounting to R175.0 million for 1964, which means that textiles to this amount were imported. These imported

textiles were used partly by the textile sector itself, but they were also used by other sectors such as the clothing industry. Similarly, the other imported raw materials required by the textile sector are shown as imports of the sectors to which they belong. Wool imported and consumed by the textile sector is included with agricultural imports; machinery required by the textile sector is on the other hand classified under the machinery sector; and so forth. In the sectoral tables a cost, insurance and freight (c.i.f.) basis is used for evaluating all imports. That is, the cost, insurance and freight payable on imports are added to the f.o.b. values shown in the official import statistics. In addition, the sectoral imports have also been adjusted to exclude imported goods re-exported without being locally processed. For these reasons the sectoral import figures will not agree with the official import statistics.

124. Sectoral exports consequently also exclude re-exports, and, like all other items in the sectoral analysis, are valued at producer prices. Railage and other costs for the removal of exports to the harbours or other points of consignment are therefore deducted from the f.o.b. values of the commodity exports as published in the official statistics, and are treated as exports by the sectors which render the services concerned. Total exports, as estimated for the balance of payments, were disaggregated into the products of the respective sectors on the basis of past trends and estimated future growth potentials. From a balance-of-payment point of view, sectoral exports should be regarded as the minimum export level to be attained by the respective sectors. It is possible, however, that the exports of one sector may increase at a slower rate than has been indicated, in which event the exports of another sector will have to increase more rapidly than was estimated, or, alternatively, imports will have to rise at a slower rate in order to attain the same development on the current account of the balance of payments as estimated in Part 2, Section (2) above.

125. The final domestic demand includes private consumption expenditure, public consumption expenditure, gross fixed capital formation and changes in inventories. The subdivision of total private consumption expenditure in 1970 into the products of the various sectors was made on the basis of the relationship between the expenditure on these products on the one hand, and the increase in per caput income on the other. The pattern of purchases of goods and services by public authorities in the past was used to estimate the future sectoral composition of this item. Gross fixed capital formation covers machinery and equipment, as well as the materials, labour and other inputs required for construction purposes. The sectoral composition of this item in 1970 is also based on the pattern of the past. The relation which existed between sectoral supply and stocks in the past, was used to subdivide the total changes in inventories into the products of the various sectors. The final domestic demand was also valued at producer prices. That is, the distributive margins and transport costs were deducted from the commodity demand and treated as the final domestic demand for the products of the trade and the transport sectors. Indirect taxes were also deducted, while subsidies were added. Since it was not possible to make all these adjustments seperately for each component of the final domestic demand (i.e. personal consumption expenditure, public consumption expenditure and capital formation), only the total final domestic demand for the

products of each sector is shown in the respective tables without its individual components being specified.

126. The intermediate demand shown for the products of each sector represents that part of the supply of the products required by all the sectors together in their production process and/or for the rendering of services.

127. The gross fixed capital formation, i.e., the amount invested in the maintenance and expansion of fixed assets such as machinery, equipment, buildings and other construction works, in each sector for the year 1970 is also shown. Since no realiable statistics relating to capital formation in the respective sectors are available for 1964, figures are not given for this item in the base year.

128. Unlike the other magnitudes which relate to the Republic, the three British High Commission Territories and South West Africa, the sectoral and global figures for employment in the E.D.P. cover employment in the Republic only. The estimates of employment for 1970 represent the demand for labour required to achieve the levels of production as indicated. The question whether or not the labour will be available, is not considered in the sectoral analyses. The global analysis of the labour market [(Part 2, Section (3)] deals with the total supply of, and demand for, labour.

129. Finally, the contribution to the G.D.P. (Gross Domestic Product or value added) per worker is shown for each sector. Although not completely identical with productivity changes, the changes in the contribution to the G.D.P. per worker give an indication of the course of labour productivity in the various sectors.

130. In the classification of activities under the various sectors, the industrial classification of the statistical offices of U.N.O. was largely followed. In each table the International Standard Industrial Classification Code (I.S.I.C.) of the activities grouped together in the various sectors is shown.[22)]

131. With a view to improving the results of the sectoral analyses, the preliminary estimates for certain sectors were first discussed with the Sectoral Advisory Committees and Government departments. The Sectoral Advisory Committees consist of private business representatives, and their practical knowledge proved invaluable in improving the sectoral estimates. At the time of the discussions it was unfortunately not possible to form Sectoral Advisory Committees for all the sectors. Those sectors which benefited from the discussions with the Sectoral Advisory Committees, Government departments and other institutions, will be indicated with an asterik (*).

1. Agriculture, forestry and fisheries*

The agricultural, forestry and fisheries sector comprises the cultivation of field crops and horticultural products, the production of animal husbandry products, afforestation

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22) For a complete description of the activities and products included under each code reference can be made to the publication of the United Nations Organization: Indexes to the International Standard Industrial Classification of all Economic Activities, Sales No. 1956, XVII 2.

and the felling and cutting of trees, and commercial fishing. Only primary products are included in this sector, processed products not being classified as products of this sector. Fresh fruit, for example, will be classified as a product of this sector, but preserved fruit will be excluded. The catching of fish is similarly included here, but the products of fish factories are excluded.

133. Table 6 shows the expected developments in this sector between 1964 and 1970. The estimates for 1970 are based on the assumption that it will be a normal agricultural year, and consequently no provision has been made for short-term fluctuations caused by the weather or other factors. On the other hand, owing to unfavourable weather conditions, the base year 1964 can be described as a bad agricultural year. In evaluating the changes between the base year and the final year, the conditions in the base year, as well as the assumptions regarding the final year, must constantly be borne in mind. In view of the large yearly fluctuations recorded in agricultural activities, this problem is of particular importance in the interpretation of the growth rate shown for this sector.

Table 6

Agriculture, Forestry and Fisheries
(I.S.I.C. 010, 020, 030 and 040)

| | | 1964 | 1970 |
|---|---|---|---|
| Production | R million | 1008.2 | 1316.1 |
| Imports | " | 53.4 | 68.7 |
| Total supply = total demand | " | 1061.6 | 1384.8 |
| Final domestic demand | " | 229.2 | 285.8 |
| Intermediate demand | " | 576.2 | 739.7 |
| Exports | " | 256.2 | 359.3 |
| Gross capital formation | " | | 151.0 |
| Employment : | | | |
| Total | 1000 | 1821.4 | 2000.7 |
| White | " | 112.0 | 98.3 |
| Non-White | " | 1709.4 | 1902.4 |
| Contribution to the G.D.P. per worker | R | 417 | 496 |

134. According to Table 6, the volume of production of this sector will be approximately 30.5% higher in 1970 than in 1964, this being equal to a compound growth rate of 4.5% per annum. An annual growth rate of 4.5%, as estimated above, may seem rather high in view of the fact that the long-term growth of this sector, as is evident from the average growth over the period 1948/49 - 1964/65, was about 3.8% per annum. As has already been mentioned, the growth rate for the period between 1964 and 1970, namely 4.5%, is to a large extent affected by the level of output in the base year. The production calculated from an extrapolation of the trend line up to 1970, based on the data for the years between 1948/49 and 1964/65, deviates by less than 1% from the 1970 level of production shown in Table 6. Thus, if 1964 had been

a normal year, the growth rate between 1964 and 1970 would have been approximately 3.8% per annum, or alternatively it can be said that the long-term growth potential of this sector may be put at 3.8% per annum.

135. The value of imported agricultural, forestry and fishery products amounted to R53.4 million in 1964, this figure being equal to about 5% of the domestic production. The most important products imported in 1964 were wheat, coffee beans, cocoa beans, raw rubber and unmanufactured tobacco. According to the estimates given in Table 6, imports of agricultural, forestry and fishery products increase at approximately the same rate as the total domestic demand for these products.

136. With regard to the final domestic demand for the products of this sector, it is estimated that it will increase from R229.2 million in 1964 to R285.8 million in 1970, or at an annual rate of 3.7%. The growth in the intermediate demand, i.e. the demand for the products of this sector which are processed further by agriculture, forestry and the fishing industry themselves, and also by other sectors of the economy before they reach the final consumers, is estimated in Table 6 at 4.3% per annum. The growth in both the final domestic demand and the intermediate demand is therefore smaller than the growth in output.

137. It is expected that exports of agricultural, forestry and fishery products in 1970 will be 40% above the 1964 level, as compared with an increase of 31% in production. This relatively rapid expansion in the volume of exports can be ascribed to the effects of the unfavourable weather conditions of the past two years on the exports of 1964.

138. In regard to next capital formation in this sector, the level of gross capital formation is estimated at R151 million in 1970. For the whole programming period, R840 million will be required for the replacement and expansion of the capital assets of this sector.

139. Finally, the expected development of employment in the agricultural, forestry and fisheries sector is discussed. According to Table 6, the total employment in this sector will increase by 9.8% during the period from 1964 to 1970, this figure being considerably lower than the estimated increase in production. The contribution to the G.D.P. per worker consequently increases from R417 in 1964 to R496 in 1970, or at a rate of 2.9% per annum. In regard to the absolute level of the contribution to the G.D.P. per worker, it should be borne in mind that the figure mentioned above, namely R417 for 1964, is the average of the high level attained on White farms and the low level prevailing in the Bantu homelands.

2. Gold mining*

140. Since uranium is produced mainly as a by-product of the gold mines, the production of uranium is included in this sector.

141. It is estimated that the production of this sector will be only 7% higher in 1970 than in 1964. This increase in the production of the sector as a whole is the result of a 12% expansion in the output of gold and a decrease of 55% in that of uranium. The last-mentioned figure for the production of uranium in 1970 is based on the contractual arrangements existing

at present. The position will be more favourable than is reflected in Table 7 to the extent to which the generally expected increase in the demand for uranium affects the exportation of this product during the period up to and including 1970.[23]

Table 7

Gold mining (including uranium)
(Part of I.S.I.C. 122)

| | | 1964 | 1970 |
|---|---|---|---|
| Production | R million | 804.0 | 858.0 |
| Imports | " | - | - |
| Total supply = total demand | " | 804.0 | 858.0 |
| Final domestic demand | " | 9.0 | - |
| Intermediate demand | " | 0.9 | 1.0 |
| Exports | " | 794.1 | 857.0 |
| Gross capital formation | " | | 70.0 |
| Employment : | | | |
| Total | 1000 | 440.9 | 394.0 |
| Whites | " | 47.0 | 42.1 |
| Non-Whites | " | 393.9 | 351.9 |
| Contribution to the G.D.P. per worker | R | 1294 | 1564 |

142. In regard to the marketing of the products of this sector, these are mainly exported, and the exportation of gold and uranium therefore increases at virtually the same rate as the total production, or by 8% between 1964 and 1970. The final domestic demand for 1964 as shown in Table 7 is an estimate of the increase in uranium stocks during the year in question. The intermediate demand for the products of this sector is negligible and consists of gold used mainly in the manufacture of jewellery and for dental purposes.

143. Although only a small increase in production is expected, the gross capital formation in this sector is estimated at R70 million for the year 1970 and at R478 million for the entire programming period. This capital is required mainly for the maintenance of existing assets and for the developmental work associated with the mining of gold ore.

144. As regards employment in this sector, Table 7 shows that total employment will decrease from 440,900 persons in 1964 to 394,000 in 1970. Since the output of this sector is expanding, this decline in employment implies an increase in the contribution to the G.D.P. per worker at the rate of 3.2% per annum.

3. Coal mining*

145. According to Table 8, the production of this sector increases from R69.9 million

23) Any increase in uranium exports above that taken into account in Table 7 will mean that the export targets in respect of exports of the other sectors can be reduced accordingly.

in 1964 to R95.3 million in 1970, this advance being equal to an average growth rate of 5.3% per annum. This sector therefore grows at about the same rate as the economy as a whole.

Table 8

Coal Mining
(I.S.I.C. 110)

| | | 1964 | 1970 |
|---|---|---|---|
| Production | R million | 69.9 | 95.3 |
| Imports | " | 0.2 | 0.2 |
| Total supply = total demand | " | 70.1 | 95.5 |
| Final domestic demand | " | 11.9 | 16.1 |
| Intermediate demand | " | 52.5 | 71.4 |
| Exports | " | 5.7 | 8.0 |
| Gross capital formation | " | | 6.0 |
| Employment : | | | |
| Total | 1000 | 67.5 | 79.3 |
| Whites | " | 4.2 | 5.0 |
| Non-Whites | " | 63.3 | 74.3 |
| Contribution to the G.D.P. per worker | R | 777 | 902 |

146. In regard to the marketing of the products of this sector, Table 8 shows that the final domestic demand, which consists mainly of private consumption expenditure, will increase by 5.2% per annum, or at a rate slightly above the annual 5.0% at which total private consumption expenditure increases. With reference to the intermediate demand, the electricity, gas and water sector, the gold mines, and the transport and communications sector are the most important consumers of coal, although most of the other sectors also use coal as fuel or for other purposes. Since provision has been made for the substitution of petroleum products and gas for coal as a fuel, the intermediate demand for coal expands at a slightly lower rate (5.3% per annum) than the economy as a whole.

147. The value of coal exports is estimated at R8.0 million in 1970, as compared with R5.7 million in 1964.

148. In order to achieve the estimated increase in production, gross capital formation amounting to R36 million will be required over the whole programming period. For 1970 the level of gross capital formation is put at R6 million.

149. Employment in this sector will increase from 67,500 persons in 1964 to 79,300 in 1970. This rise in employment implies an annual increase of 2.5% in the contribution to the G.D.P. per worker.

4. Other mining and quarrying

150. This sector includes a variety of activities, the most important of these being

the mining of diamonds, copper, asbestos, iron ore and manganese. In a comparison of the output of, and the demand for the products of this sector, the problem arises that many mines themselves process their output to the stage where their products should really be regarded as manufactured articles, and these are actually classified as such in the official foreign trade statistics. On the other hand, the output, employment and materials consumed by these mines are shown in the mining statistics. Since it is not possible to disaggregate the mining activities and the processing of the ore into manufactured products, it was found expedient to adapt the export statistics to the production classification. The products produced by the mines and then exported are therefore included with the exports of this sector, and are excluded from the exports of the basic non-ferrous metal sector (No. 21) where they are classified in the official export statistics.

**Table 9**

Other mining and quarrying
(I.S.I.C. 120, 130, 140 and 190)

| | | 1964 | 1970 |
|---|---|---|---|
| Production | R million | 277.8 | 373.3 |
| Imports | " | 56.2 | 124.0 |
| Total supply = total demand | " | 334.0 | 497.3 |
| Final domestic demand | " | 14.6 | 21.6 |
| Intermediate demand | " | 100.5 | 192.4 |
| Exports | " | 218.9 | 283.3 |
| Gross capital formation | " | | 21.0 |
| Employment : | | | |
| Total | 1000 | 104.8 | 125.6 |
| Whites | " | 11.2 | 12.2 |
| Non-Whites | " | 93.6 | 113.4 |
| Contribution to the G.D.P. per worker | R | 2200 | 2447 |

151. In regard to the supply, the domestic production of other mining and quarring products is estimated to increase at an average rate of 5.0% per annum between 1964 and 1970. Table 9 shows further that the rate of growth in imports of other mining products is as high as 14.1% per annum. The reason for this considerable rise is that imports of crude oil will increase sharply owing to the local refining of crude oil. On the other hand, imports of petroleum products will reflect a sharp decline, as will appear from the discussion of developments in the petroleum and coal-product sector (No. 18).

152. For the reasons mentioned above, the intermediate demand for the products of the other mining and quarrying sector also shows a big increase, namely from R100.5 million in 1964 to R192.4 million in 1970. The final domestic demand shown for the products of this sector consists mainly of sand and stone used for construction purposes.

153. A large part of the output of this sector is sold in the export market. In 1964, for example, 4/5ths of its production was exported. For 1970 exports are put at R283.3 million, this figure being approximately 30% above the 1964 level.

154. The total gross capital formation for the 6-year period from 1964 to 1970 will amount to R159 million. For 1970 the level of gross capital formation is estimated at R21 million.

155. In so far as employment in this sector is concerned, the total figure increases from 104,800 persons in 1964 to 126,600 in 1970, which implies an average increase of 1.8% per annum in the contribution to the G.D.P. per worker.

5. Processed foodstuffs

156. The activities covered by this sector are the slaughtering of livestock and the preparation of meat, the manufacturing of dairy products, the canning and preserving of fish, fruit and vegetables, the milling of grain, and the manufacture of bread and other bakery products, sugar, confectionery, animal feeds and other food products.

157. The production of this sector will, according to the estimates given in Table 10, increase by 4.9% per annum, while imports of processed foodstuffs will decrease from R47.2 million in 1964 to R44.7 million in 1970. Since imports of processed foodstuffs were exceptionally high in 1964 owing to the bad agricultural year which necessitated the importation of such products as butter, it is expected that, under normal conditions, such imports will decline in relation to the high level attained in 1964.

Table 10

Processed Foodstuffs

(I.S.I.C. 201 to 209)

| | | 1964 | 1970 |
|---|---|---|---|
| Production | R million | 955.1 | 1271.9 |
| Imports | " | 47.2 | 44.7 |
| Total supply = total demand | " | 1002.3 | 1316.6 |
| Final domestic demand | " | 626.0 | 815.5 |
| Intermediate demand | " | 224.6 | 307.7 |
| Exports | " | 151.7 | 193.4 |
| Gross capital formation | " | | 52.5 |
| Employment : | | | |
| Total | 1000 | 116.4 | 136.9 |
| Whites | " | 20.9 | 23.9 |
| Non-Whites | " | 95.5 | 113.0 |
| Contribution to the G.D.P. per worker | R | 1522 | 1722 |

158. In so far as the growth in the demand for processed foodstuffs is concerned, the final domestic demand, which consists mainly of private consumption expenditure, grows by 4.5% per annum. The intermediate demand consists for the most part of processed animal feeds and products consumed by this sector itself, e.g. flour. The intermediate demand expands by 5.4% per annum, this figure being slightly above the growth rate estimated for the production of this sector. With reference to exports of processed foodstuffs, it is estimated that these will be 27.5% higher in 1970, than in 1964.

159. The gross capital formation required over the period from 1964 to 1970 to achieve the increased output, is estimated at R282 million. The level of gross capital formation in 1970 will amount to R52.5 million.

160. In regard to employment, the demand for labour will increase from 116,400 persons in 1964 to 136,900 in 1970, or by 18%. On the basis of the increases in production and employment, the contribution to the G.D.P. per worker grows by an annual rate of 2.1%.

6. Beverages and tobacco

161. This sector includes the manufacture of alcoholic and non-alcoholic beverages and tobacco products.

162. Local production constitutes the major part of total supply and in 1964 was equal to 93.5% of the total supply. According to Table 11, the production of beverages and tobacco will increase by 6.3% per annum between 1964 and 1970. Since imports of alcoholic beverages were at an exceptionally high level in 1964, owing mainly to poor vintage years, provision has been made for a small decline in imports, namely from R12.4 million in 1964 to R10.8 million in 1970.

Table 11

Beverages and Tobacco
(I.S.I.C. 211 - 214
and 220)

| | | 1964 | 1970 |
|---|---|---|---|
| Production | R million | 180.7 | 261.1 |
| Imports | " | 12.4 | 10.8 |
| Total supply = total demand | " | 193.1 | 271.9 |
| Final domestic demand | " | 148.7 | 205.8 |
| Intermediate demand | " | 39.6 | 56.6 |
| Exports | " | 4.8 | 9.5 |
| Gross capital formation | " | | 22.7 |
| Employment : | | | |
| Total | 1000 | 27.3 | 32.2 |
| Whites | " | 7.0 | 7.9 |
| Non-Whites | " | 20.3 | 24.3 |
| Contribution to the G.D.P. per worker | R | 2204 | 2705 |

163. In the marketing of beverages and tobacco, the final domestic demand is the main outlet, its growth rate being estimated at 5.6% per annum. The intermediate demand consists mainly of products processed by the beverage and tobacco sector itself (e.g. malt), while catering services also use its products. The growth rate of the intermediate demand is about the same as that of the production of the sector, namely 6.1% per annum.

164. Although an increase in exports of beverages and tobacco from R4.8 million in 1964 to R9.5 million in 1970 is a large percentual rise, namely 98%, the absolute amount involved is small, and exports will be equal to only 3.6% of production in 1970.

165. In regard to the capital formation required for the estimated expansion in output, the total gross capital formation for the entire programming period is calculated at R117 million. In 1970 the gross capital formation will amount to R22.7 million.

166. In the case of the beverage and tobacco sector, the number of workers will, according to estimates, increase from 27,300 in 1964 to 32,200 in 1970, or by 18%. The growth in the contribution to the G.D.P. per worker is therefore 3.5% per annum.

7. Textiles*

167. This sector comprises the preparation of fibres (e.g. wool scouring and cotton ginning), the spinning and weaving of textiles, and the manufacture of rope and twine, bags and sacks, tents and other canvas goods. Knitting mills are usually included under the textile sector but, owing to statistical difficulties encountered in distinguishing between private consumption expenditure on knitted and other clothing, knitting mills have, as in the past, been included under the clothing sector in this E.D.P.

168. In regard to the supply of textiles, Table 12 shows that production will increase from R238.7 million in 1964 to R394.4 million in 1970, or at a rate of 8.7% per annum. This growth rate is considerably higher than that of the economy as a whole. The volume of production of textiles increased by as much as 18.3% from 1963 to 1964, but that this rate of expansion cannot be expected to be maintained over the whole programming period. The high growth rate (8.7% p.a.) which is envisaged for this sector during the period from 1964 to 1970, can be ascribed to the expected developments in the importation of textiles. It is estimated that a smaller quantity of textiles will be imported in 1970 than in 1964. In 1964 imports were equal to 73% of local production, while for 1970 the figure is only 40%.

Table 12

Textiles

(I.S.I.C. 231, 233, 239 and 244)

| | | 1964 | 1970 |
|---|---|---|---|
| Production | R million | 238.7 | 394.4 |
| Imports | " | 175.0 | 158.2 |
| Total supply = total demand | " | 413.7 | 552.6 |
| Final domestic demand | " | 160.9 | 193.5 |
| Intermediate demand | " | 227.8 | 320.8 |
| Exports | " | 25.0 | 38.3 |
| Gross capital formation | " | | 39.8 |
| Employment : | | | |
| Total | 1000 | 52.9 | 83.6 |
| Whites | " | 6.2 | 8.6 |
| Non-Whites | " | 46.7 | 75.0 |
| Contribution to the G.D.P. per worker | R | 1280 | 1342 |

169. Although textiles are used mainly by other sectors, a large part of the total supply is purchased direct by the final consumers. The final domestic demand for textiles, as estimated in Table 12, shows a slow rate of expansion relative to the growth rate of the economy and increase by only 3.1% per annum between 1964 and 1970. The 1964 estimates of the final domestic demand include a large increase in stocks, while provision is made for only a normal expansion in inventories for 1970. If inventory changes are excluded, the final domestic demand for the products of this sector increase by 4.9% per annum. With reference to the intermediate demand, it appears from Table 12 that this increases more rapidly than the final domestic demand, but more slowly than the output of this sector. The growth rate of the intermediate demand is 5.9% per annum.

170. Textile exports consist mainly of scoured wool, wool tops and noils, the 1970 exports being put at R38.3 million, as compared with R25.0 million in 1964.

171. In regard to the capital formation required by the textile sector, the total gross capital formation over the six-year period 1964-1970 is estimated at R197 million and at R40 million for 1970.

172. Total employment in the textile sector is expected to increase from 52,900 persons in 1964 to 83,600 in 1970, or by 58%. On the basis of the estimated increases in production and employment the contribution to the G.D.P. per worker implies a growth of 0.8% per annum. Since this sector is relatively labour intensive and employs a large number of non-Whites, considerable increase in labour productivity are not expected.

8. Clothing factories and knitting mills*

This sector, as its name indicates, includes the manufacture of wearing apparel

(except footwear) and the products of knitting mills. Although clothing factories and knitting mills were grouped together for statistical considerations purposes, it now appears desirable to separate knitting mills from the clothing factories, and consideration will be given to this aspect in the next E.D.P.

174. As regards the growth of the clothing sector, Table 13 shows that this sector produces mainly for the domestic market, and, since imports of clothing are already at a relatively low level, import replacement cannot constitute an important source of growth. The expansion of production, especially of clothing, is consequently to a large extent determined by the growth of domestic consumption. The output of the clothing sector therefore increases at a relative slow rate, the annual growth rate being put at 4.2%, as compared with 5.4% for the economy as a whole. With reference to imports, only a small part of the total supply is satisfied by imported clothing and knitted goods, the figure being only 13% in 1964. Most of these imports are the products of knitting mills, and the extent to which local manufacturers succeed in producing more of these products, will determine their ability to expand more rapidly than the average growth of the sector as a whole.

Table 13

Clothing and knitted products
(I.S.I.C. 232 and 243)

| | | 1964 | 1970 |
|---|---|---|---|
| Production | R million | 249.4 | 320.1 |
| Imports | " | 28.2 | 28.5 |
| Total supply = total demand | " | 277.6 | 348.6 |
| Final domestic demand | " | 257.0 | 322.5 |
| Intermediate demand | " | 15.2 | 19.9 |
| Exports | " | 5.4 | 6.2 |
| Gross capital formation | " | | 6.9 |
| Employment : | | | |
| Total | 1000 | 72.4 | 87.0 |
| Whites | " | 10.8 | 11.2 |
| Non-Whites | " | 61.6 | 75.8 |
| Contribution to the G.D.P. per worker | R | 1310 | 1401 |

175. In regard to the growth of the demand for clothing and knitted products, the final domestic demand will increase by 3.9% per annum between 1964 and 1970 according to the estimates given in Table 13. The intermediate demand is relatively small and consists mainly of protective clothing for the gold mines and other industries, and also of knitted textile goods. The intermediate demand increases from R15.2 million in 1964 to R19.9 million in 1970, or by 4.6% per annum.

176. Exports of the products of this sector are also relative small, only 2.1% of the

production having been exported in 1964. For 1970 exports are put at R6.2 million, this figure being 15% above the 1964 level.

177. To attain the increase in production shown in Table 13, gross capital formation amounting to R38 million will be required over the whole programming period. The gross capital formation for the year 1970 is estimated at R6.9 million.

178. In so far as employment in the clothing and knitting-mill sector is concerned, the total number of workers will increase from 72,400 in 1964 to 87,000 in 1970, or by 20%. On the basis of the estimated expansion in output, this increase in employment will mean a growth of 1.1% per annum in the contribution to the G.D.P. per worker.

9. Footwear*

179. This sector comprises the manufacture and repair of shoes.

180. The products of this sector are used mainly by individuals, and since imports are already at a relatively low level, the growth in production is largely determined by developments in the final domestic demand. According to Table 14, production increases by an average of 4.1% per annum between 1964 and 1970. Imports of footwear in 1970 are estimated at R3.0 million, this figure being 20% above the 1964 level.

Table 14

Footwear

(I.S.I.C. 241 and 242)

| | | 1964 | 1970 |
|---|---|---|---|
| Production | R million | 66.0 | 83.8 |
| Imports | " | 2.5 | 3.0 |
| Total supply = total demand | " | 68.5 | 86.8 |
| Final domestic demand | " | 59.0 | 74.5 |
| Intermediate demand | " | 7.8 | 10.0 |
| Exports | " | 1.7 | 2.3 |
| Gross capital formation | " | | 3.6 |
| Employment : | | | |
| Total | 1000 | 25.6 | 27.6 |
| Whites | " | 4.0 | 4.3 |
| Non-Whites | " | 21.6 | 23.3 |
| Contribution to the G.D.P. per worker | R | 1017 | 1199 |

181. In respect of the marketing of footwear, the final domestic demand is the most important outlet, the estimates in Table 14 showing that it will increase by 3.9% per annum. The intermediate demand represents mainly purchases of footwear by the mines, and also parts of shoes used by the footwear sector itself. The intermediate demand is estimated at R10 million for 1970.

182. Exports of footwear, which have shown a declining trend in the past, are at present not an important outlet for the products of this sector. Footwear exports are put at R2.3 million for 1970.

183. In the case of capital formation in the footwear sector, it is estimated that the total gross capital formation over the 6-year period from 1964 to 1970 will amount to R21 million, the 1970 level of such capital formation being put at R6 million.

184. Employment in the footwear sector shows a small increase and in 1970 is expected to be only 8% above the 1964 level. The contribution to the G.D.P. per worker therefore, increases by 2.8% per annum.

10. Wood and Wood products

185. This sector comprises saw mills, carpentry and joinery, the production of plywood, woodcarving and woodturning, the preservation of wood, and the manufacture of certain other timber products. Wood pulp is not included in this sector, but is classified under the paper and paper-product sector.

186. In regard to the growth in the supply of timber products, Table 15 shows that production increases from R75.8 million in 1964 to R109.0 million in 1970, this being equal to an annual growth rate of 6.3%. After a sharp increase during 1964, imports of timber products are expected to rise at a slower rate than the local production of these products. The average growth rate of imports is estimated at 4.6% per annum, as compared with 6.3% for production.

Table 15

Wood and Wood products
(I.S.I.C. 250)

| | | 1964 | 1970 |
|---|---|---|---|
| Production | R million | 75.8 | 109.0 |
| Imports | " | 33.0 | 43.3 |
| Total supply = total demand | " | 108.8 | 152.3 |
| Final domestic demand | " | 59.4 | 77.5 |
| Intermediate demand | " | 48.7 | 73.7 |
| Exports | " | 0.7 | 1.1 |
| Gross capital formation | " | | 18.4 |
| Employment : | | | |
| Total | 1000 | 37.8 | 44.0 |
| Whites | " | 3.9 | 4.5 |
| Non-Whites | " | 33.9 | 39.5 |
| Contribution to the G.D.P. per worker | R | 733 | 904 |

187. The final domestic demand for wood and wood products increases from R59.4 million in 1964 to R77.5 million in 1970, this being equal to a growth rate of 4.5% per annum. The intermediate demand, on the other hand, grows at a much higher rate, namely by 7.1% per annum.

188. The value of wood exports amounted to only R0.7 million in 1964 and is estimated at R1.1 million for 1970.

189. In so far as capital formation in the wood and wood product sector is concerned, the total gross capital formation during the 6-year period from 1964 to 1970 will amount to R91 million. The 1970 level of gross capital formation is estimated at R18 million.

190. Employment in this sector increases by 16.4% over the whole programming period, and on basis of the above expansion in production this increase in employment implies a growth rate of 3.6% per annum in the contribution to the G.D.P. per worker.

11. Furniture

191. The production of this sector, which includes only furniture, will increase by 3.9% per annum according to Table 16. Imports of furniture consist mainly of the household effects of immigrants. Imports of new furniture are negligible and amounted to only about R1.9 million in 1964.

Table 16

Furniture
(I.S.I.C. 260)

| | | 1964 | 1970 |
|---|---|---|---|
| Production | R million | 72.0 | 90.5 |
| Imports | " | 11.9 | 12.1 |
| Total supply = total demand | " | 83.9 | 102.6 |
| Final domestic demand | " | 72.0 | 87.6 |
| Intermediate demand | " | 9.0 | 11.8 |
| Exports | " | 2.9 | 3.2 |
| Gross capital formation | " | | 2.6 |
| Employment : | | | |
| Total | 1000 | 21.4 | 24.8 |
| Whites | " | 3.6 | 4.2 |
| Non-Whites | " | 17.8 | 20.6 |
| Contribution to the G.D.P. per worker | R | 1449 | 1571 |

192. In regard to the marketing of furniture, the final domestic demand constitutes the most important outlet and is expected to increase at a slower rate than the national income. In Table 16 the average growth rate of this item is estimated at 3.4% per annum for the period 1964-1970. The intermediate demand, which is relatively small, consists mainly of repairs to furniture and shop fittings and excludes new furniture bought by business concerns. The

intermediate demand increases at an average annual rate of 4.7%.

193. Furniture exports, which consist mainly of emigrant household effects, are small and are put at R3.2 million for 1970.

194. As regards capital formation in the furniture sector, the gross capital formation is estimated at R2.6 million in 1970 and at a total of R14 million over the whole 6-year period from 1964 to 1970.

195. Total employment in this sector is estimated to increase by 15% over the whole programming period, which means an increase of 1.4% per annum in the contribution to the G.D.P. per worker.

12. Paper and paper products*

196. The principal products of this sector are pulp, paper and paper board, paper bags, cardboard boxes and mounts, and stationery.

197. According to Table 17, the production of this sector shows a high rate of growth and the 1970 level of production is 66% above the volume of production in 1964, this being equal to an annual growth rate of 8.8%. This high rate of expansion is caused by, inter alia, the assumed decline in imports. Imports of paper and paper products amounted to R44.4 million in 1964, which was equal to 23% of the total supply, and for 1970 they are equal to 12% of the total supply.

Table 17

Paper and paper products
(I.S.I.C. 271 and 272)

| | | 1964 | 1970 |
|---|---|---|---|
| Production | R million | 148.9 | 247.5 |
| Imports | " | 44.4 | 34.1 |
| Total supply = total demand | " | 193.3 | 281.6 |
| Final domestic demand | " | 27.0 | 33.9 |
| Intermediate demand | " | 147.3 | 222.3 |
| Exports | " | 19.0 | 25.4 |
| Gross capital formation | " | | 33.6 |
| Employment : | | | |
| Total | 1000 | 24.5 | 37.0 |
| Whites | " | 6.1 | 8.4 |
| Non-Whites | " | 18.4 | 28.6 |
| Contribution to the G.D.P. per worker | R | 2412 | 2658 |

In respect of the demand for paper and paper products, the final domestic demand, which is relatively small, will increase by 3.9% per annum and is estimated at R33.9 million for 1970. Since all sectors of the economy make use of paper and paper products either as raw

materials or packing materials or as stationery, the intermediate demand is the principal outlet for the products of this sector. The sectors which are the main consumers of these products are printing and publishing, paper and paper products itself, processed foodstuffs, the chemical sector and commerce. In 1970 the intermediate demand will be 51% above the 1964 level, this being equal to an annual growth rate of 7.1%.

199. Exports of paper and paper products are put at R25.4 million for 1970, which will be equal to one tenth of the output. This estimate also implies an average annual growth rate of 5.0% in the exports of these products between 1964 and 1970.

200. The gross capital formation in this sector is estimated at R33.6 million for the year 1970. Over the whole 6-year period from 1964 to 1970 this sector will require a gross capital formation amounting to R166 million to meet the estimated increase in production.

201. As regards employment in the paper and paper product sector, total employment increases by 51% between 1964 and 1970, this figure being slightly lower than the increase in production. The contribution to the G.D.P. per worker therefore increases by 1.6% per annum.

13. Printing, publishing and allied industries

202. This sector includes the printing, lithographing and publication of newspapers, periodicals, books and maps; bookbinding and other work related to bookbinding, such as typesetting, gilding and edging; and services for the printing trade.

203. As shown in Table 18, the production of this sector also increases more rapidly than the growth in the economy as a whole, expanding at a rate of 6.4% per annum. On the other hand, provision is made for an increase of only 3.9% per annum in the volume of imports. The reason for this is that imports of the products of this sector, as was also the case in many other sectors, showed an abnormally large increase from 1963 to 1964. This was due mainly to two factors, namely the large expansions of stocks, and the inability of local production capacity to meet the sharp rise in the domestic demand.

Table 18

Printing, Publishing and Allied Industries
(I.S.I.C. 280)

| | | 1964 | 1970 |
|---|---|---|---|
| Production | R million | 115.8 | 168.3 |
| Imports | " | 21.1 | 26.5 |
| Total supply = total demand | " | 136.9 | 194.8 |
| Final domestic demand | " | 50.5 | 72.8 |
| Intermediate demand | " | 82.1 | 116.7 |
| Exports | " | 4.3 | 5.3 |
| Gross capital formation | " | | 9.6 |
| Employment : | | | |
| Total | 1000 | 17.2 | 23.0 |
| Whites | " | 16.5 | 19.5 |
| Non-Whites | " | 11.2 | 13.5 |
| Contribution to the G.D.P. per worker | R | 2343 | 2868 |

204. In so far as expected developments in the demand for the products of this sector are concerned, the above table shows that the final domestic demand increases by 6.3% per annum, while the growth rate for the intermediate demand is put at 6.0% per annum.

205. Exports of printed matter are estimated at R5.3 million for 1970, this figure being 23% above the 1964 level. This increase is equal to an annual growth rate of 3.5%.

206. As regards the capital formation required by the printing, publishing and allied industries sector for achieving the estimated increased production, the total gross capital formation for the whole period between 1964 and 1970 is put at R50 million. The level of gross capital formation is estimated at R9.6 million for 1970.

207. In 1964 there were 27,700 persons working in this sector, and the 1970 employment is estimated at 19% above the 1964 level, which means an annual increase of 3.4% in the contribution to the G.D.P. per worker.

14. Leather and leather products

208. Activities included in this sector embrace tanning, fellmongering, and the manufacture of harness and saddlery, travel goods and other leather products, excluding footwear.

209. According to the developments in this sector as shown in Table 19, the production of leather and leather products increases by 2.6% per annum between 1964 and 1970. This rate of growth is considerably slower than the average rate of growth of the economy as a whole. As will presently be shown, this slow rate of expansion is due to the trend of the domestic demand. As regards imports of such products, these were equal to about one third of the total supply in 1964. Special quality leathers are being imported, and it is expected that imports will continue to be an important source of supply of these products in 1970.

Table 19

Leather and leather products
(S.I.I.C. 291 and 292)

| | | 1964 | 1970 |
|---|---|---|---|
| Production | R million | 23.4 | 27.3 |
| Imports | " | 10.7 | 12.0 |
| Total supply = total demand | " | 34.1 | 39.3 |
| Final domestic demand | " | 6.7 | 5.4 |
| Intermediate demand | " | 26.8 | 33.1 |
| Exports | " | 0.6 | 0.8 |
| Gross capital formation | " | | 0.1 |
| Employment : | | | |
| Total | 1000 | 5.5 | 5.8 |
| Whites | " | 0.7 | 0.7 |
| Non-Whites | " | 4.8 | 5.1 |
| Contribution to the G.D.P. per worker | R | 1283 | 1420 |

210. As has already been mentioned, the slow growth in the production of this sector is due to the expected trend of the demand for leather and leather products. The final domestic demand for 1970 is estimated to be even smaller than in 1964. This is due to an increase of R2.7 million in the stocks of leather and leather products for 1964, whereas the final domestic demand for 1970 includes a normal increase in stocks amounting to only R0.3 million. If changes in inventories of leather and leather products are excluded, the final domestic demand increases by 28% between 1964 and 1970. The major outlet for the products of this sector, however, is the intermediate demand, with the footwear sector as the principal consumer, while other sectors such as agriculture, mining, clothing and motor vehicles also use leather and leatherproducts. Since the footwear sector, the principal consumer of leather and leather products also grows at a relatively slow rate and, in addition, is expected to make more use of materials other than leather, the intermediate demand for leather and leather products, as shown in Table 19, increases by only 3.6% per annum.

211. Exports of leather and leather products, of which leather soles were the main item in 1964, are estimated at R0.8 million for 1970.

212. Owing to the smallness of the increase in the production of this sector, the gross capital formation required for the whole 6-year period from 1964 to 1970 is put at only R1 million.

213. Employment in the leather and leather-product sector increases from 5,500 persons in 1964 to 5,800 in 1970, while the contribution to the G.D.P. per worker rises by 1.7% per annum.

15. Rubber products*

214. This sector comprises the manufacture of tyres, tubes, and other rubber products. It also includes the vulcanising of rubber tyres and the reclaiming of rubber from used tyres or other waste rubber.

215. The volume of production of rubber products increased by 14.5% from 1963 to 1964. For the period between 1964 and 1970 the average rate of increase is estimated at 6.9% per annum. Owing partly to a sharp rise in imports of rubber products from 1963 to 1964, the 1970 import level is expected to be lower than that of 1964, the figure being put at R7.8 million.

Table 20

Rubber Products
(I.S.I.C. 300)

| | | 1964 | 1970 |
|---|---|---|---|
| Production | R million | 91.8 | 137.1 |
| Imports | " | 8.6 | 7.8 |
| Total supply = total demand | " | 100.4 | 144.9 |
| Final domestic demand | " | 30.5 | 48.6 |
| Intermediate demand | " | 66.6 | 91.4 |
| Exports | " | 3.3 | 4.9 |
| Gross capital formation | " | | 11.1 |
| Employment : | | | |
| Total | 1000 | 13.9 | 16.3 |
| Whites | " | 4.2 | 4.9 |
| Non-Whites | " | 9.7 | 11.4 |
| Contribution to the G.D.P. per worker | R | 2669 | 3420 |

216. The final domestic demand, which amounted to R30.5 million in 1964, increases by 8.1% per annum. In 1964 two-thirds of the supply of rubber products was used by other sectors of the economy, of which the motor industry, the footwear sector, the gold mines, transport, and commerce were the most important consumers. According to Table 20, the intermediate demand for rubber products expands by 5.4% per annum.

217. As regards exports of rubber products, these are estimated at R4.9 million for 1970, or 48% above the 1964 level.

218. In so far as capital formation in the rubber-product sector is concerned, the gross capital formation which will be required for the expansion in production is put at R57 million for the whole of the programming period. For 1970, the gross capital formation will amount to about R11.1 million.

219. In 1964 there were 13,900 persons working in this sector, and the total employment in 1970 is estimated at 16,300 persons, this figure being 17% higher than the 1964 level. On the other hand, production increases by 49% over this 6-year period, the above increase in employment therefore implying an increase of 4.2% per annum in the contribution to the G.D.P. per worker.

16. Basic industrial chemicals*

220. This sector includes only basic industrial chemicals such as fertilisers, explosives and carbide, wattle extract, acids, alkalis, mineral oxides, and salts, plastics, synthetic fibres and synthetic rubber.

221. The volume of production of basic industrial chemicals increased by as much as 17.6% from 1963 to 1964, and according to the production estimates shown in Table 21 the average growth rate will be as high as 8.3% per annum during the period from 1964 to 1970. This high average rate of expansion is due, inter alia, to a relative decline in the importance of imported basic chemicals in the total supply. Basic chemical imports were equal to 37% of the supply in 1964, and for 1970 they are estimated at R124.8 million, this being equal to 28% of the supply.

Table 21

Basic chemicals
(I.S.I.C. 311)

| | | 1964 | 1970 |
|---|---|---|---|
| Production | R million | 193.3 | 312.6 |
| Imports | " | 115.7 | 124.8 |
| Total supply = total demand | " | 309.0 | 437.4 |
| Final domestic demand | " | 18.2 | 28.2 |
| Intermediate demand | " | 268.0 | 379.2 |
| Exports | " | 22.8 | 30.0 |
| Gross capital formation | " | | 26.2 |
| Employment : | | | |
| Total | 1000 | 23.7 | 27.1 |
| Whites | " | 6.7 | 7.7 |
| Non-Whites | " | 17.0 | 19.5 |
| Contribution to the G.D.P. per worker | R | 2684 | 3797 |

222. In the regard to the marketing of basic industrial chemicals, only a small part of the supply is destined for the final domestic demand, the major part going to the intermediate demand. Gold mining, agriculture, the basic industrial chemical sector itself, as well as the miscellaneous chemical sector, are the principal consumers of basic industrial chemicals, but all the other sectors also use the products of this sector. The intermediate demand, as indicated in Table 21, increases by an average of 6.0% per annum.

223. In 1964 exports consisted mainly of wattle extract, explosives and fertilizers. Owing to the limited export potentialties of certain of these products, the annual growth rate of exports is estimated at only 4.7% as compared with 8.3% per annum for the production of basic industrial chemicals.

224. The total gross capital formation required by this sector for the expected increase in production amounts to R137 million for the whole programming period. For the year 1970 the gross capital formation is put at R26 million.

225. The total employment in the basic industrial chemical sector will be only 14% higher in 1970 than in 1964. On the basis of the expected rise in production, this increase in employment implies a growth rate of 6% per annum in the contribution to the G.D.P. per worker.

17. Miscellaneous chemicals

226. This sector produces a large variety of products such as vegetable and animal oils; oil cake and meal; candles; cosmetics, soap and detergents; paint varnishes and lacquers; polish, dyes and ink; drugs and pharmaceutical preparations; disinfectants and insecticides; and matches.

227. As regards the supply of miscellaneous chemical products, production will increase by 46% between 1964 and 1970, this being equal to an annual growth rate of 6.5%. According to Table 22, miscellaneous chemical imports increase at a rate of 5.2% per annum.

Table 22

Miscellaneous chemicals
(I.S.I.C. 312 and 319)

| | | 1964 | 1970 |
|---|---|---|---|
| Production | R million | 186.6 | 272.3 |
| Imports | " | 53.3 | 71.9 |
| Total supply = total demand | " | 239.9 | 344.2 |
| Final domestic demand | " | 117.7 | 167.7 |
| Intermediate demand | " | 106.8 | 153.5 |
| Exports | " | 15.4 | 23.0 |
| Gross capital formation | " | | 12.2 |
| Employment : | | | |
| Total | 1000 | 26.7 | 31.4 |
| Whites | " | 10.0 | 11.8 |
| Non-Whites | " | 16.7 | 19.7 |
| Contribution to the G.D.P. per worker | R | 2279 | 2832 |

228. In regard to the outlets for the products of this sector, the final domestic demand absorbed about half of the supply in 1964. This item is estimated to increase by 6.1% per annum between 1964 and 1970, as compared with an annual increase of 5.1% in the net national income. The intermediate demand also shows a high growth rate, increasing by 6.2% per annum. All the sectors distinguished consume miscellaneous chemical products, but the services sector, the miscellaneous chemical sector itself, agriculture, processed foodstuffs and the metal sector are the principal intermediate consumers of miscellaneous chemicals.

229. Vegetable oils were the most important items exported by this sector in 1964, but other products such as drugs, insecticides, paint, etc., were also exported. Miscellaneous chemicals exports are estimated at R23.0 million for 1970, as compared with R15.4 million for 1964.

230. To achieve the high growth in output calculated for this sector, gross capital formation amounting to R86 million will be required over the whole programming period. For

1970 the level of gross capital formation is estimated at R12.2 million.

231. In so far as employment in the miscellaneous chemical sector is concerned, the total figure for 1970 is put at 31,000 persons, this being 18% above the 1964 level. These figures imply an increase of 3.7% per annum in the contribution to the G.D.P. per worker.

18. Petroleum and coal products*

232. The principal products of this sector are petrol, lubricating oils and greases, but coke, bitumen and related emulsions are also included.

233. With reference to the supply of petroleum and coal products, the volume of production increased by nearly 60% from 1963 to 1964. For the programming period an average annual growth rate of 12.0% is estimated, this being the highest rate envisaged for any sector distinguished here. The reasons for this sharp increase in production are, firstly, the expected decline in imports as shown in Table 23, and, secondly, the rapid rise in the domestic demand for the products of this sector. Petroleum and coal-product imports were equal to 35% of production in 1964, and according to the estimates they will decline to only 5.5% of production in 1970. As has already been mentioned, this decline in imports of petroleum products entails an increase in imports of mining products in the form of crude oil. In terms of value, the increase in crude oil imports is, of course, smaller than the decrease in imports of petroleum products.

Table 23

Petroleum and coal products
(I.S.I.C. 322 and 329)

| | | 1964 | 1970 |
|---|---|---|---|
| Production | R million | 151.3 | 298.6 |
| Imports | " | 52.5 | 16.3 |
| Total supply = total demand | " | 203.8 | 314.9 |
| Final domestic demand | " | 69.7 | 105.3 |
| Intermediate demand | " | 117.3 | 187.2 |
| Exports | " | 16.8 | 22.4 |
| Gross capital formation | " | | 45.8 |
| Employment : | | | |
| Total | 1000 | 9.3 | 10.6 |
| Whites | " | 3.9 | 4.5 |
| Non-Whites | " | 5.4 | 6.1 |
| Contribution to the G.D.P. per worker | R | 4057 | 7066 |

234. In regard to the demand for petroleum and coal products, Table 23 shows that the final domestic demand increases from R69.7 million in 1964 to R105.3 million in 1970, this figure being equal to an annual growth rate of 7.5%. In addition, the intermediate demand for products

of this sector increases by 8.1% per annum. All the sectors distinguished consume petroleum products, 58% of the supply having been taken up by intermediate consumers in 1964, the most important of which were agriculture, transport and commerce.

235. In 1964 exports by this sector consisted mainly of residual fuel oils, these being refinery by-products for which there is no adequate domestic market. Since the Sectoral Advisory Committee has pointed out that it is not "advantageous" to export these products, and since an attempt will be made to reduce their production, the increase in exports by this sector is put at only 5% per annum, as compared with an annual growth rate of 12% in production.

236. In so far as capital formation in the petroleum and coal-product sector is concerned, the total gross capital formation is estimated at R212 million for the whole programming period. For 1970 the level of gross capital formation is put at R45.8 million.

237. Although the output of this sector increases sharply, employment shows only a slight increase from 9,300 persons in 1964 to 10,600 in 1970. The contribution to the G.D.P. per person consequently grows by 9.7% per annum.

19. Non-metallic mineral products

238. This sector embraces the manufacture of bricks, tiles, earthenware and pottery, glass and glass products, cement, plaster and composition boards. It also includes such activities as modelling in cement, lime burning, and the manufacture of stone and marble products.

239. Table 24 shows that the expansion in output is estimated at 5.8% per annum for this sector. On the other hand, provision is made for only a slight increase in imports, namely from R22.1 million in 1964 to R24.0 million in 1970. The reason for this is that imports of non-metallic mineral products increased appreciably from 1963 to 1964, partly because of the inability of local production capacity to meet the sharp increase in the domestic demand.

Table 24

Non-metallic Mineral Products
(I.S.I.C. 331 to 339)

| | | 1964 | 1970 |
|---|---|---|---|
| Production | R million | 198.0 | 277.7 |
| Imports | " | 22.1 | 24.0 |
| Total supply = total demand | " | 220.1 | 301.7 |
| Final domestic demand | " | 154.7 | 210.8 |
| Intermediate demand | " | 60.6 | 84.4 |
| Exports | " | 4.8 | 6.5 |
| Gross capital formation | " | | 21.5 |
| Employment : | | | |
| Total | 1000 | 71.2 | 85.7 |
| Whites | " | 11.8 | 13.5 |
| Non-Whites | " | 59.4 | 72.2 |
| Contribution to the G.D.P. per worker | R | 1298 | 1511 |

240. According to Table 24, the final domestic demand, which consists mainly of capital formation, increases by 5.3% per annum from 1964 to 1970. As regards the intermediate demand, processed foodstuffs, gold mining, agriculture, the manufacture of furniture, the motor vehicle sector and the non-metallic mineral sector itself are the principal consumers of the products of this sector. It is estimated that the intermediate demand will increase by 5.7% per annum between 1964 and 1970.

241. Exports of non-metallic mineral products constituted only 3% of the production in 1964, and for 1970 exports are estimated at R6.5 million.

242. In regard to the capital formation required by the non-metallic mineral sector, the total gross capital formation for the whole 6-year period will amount to R113 million. For 1970 the level of capital formation is put at R21.5 million.

243. For 1970 the estimated total employment in this sector is 85,700 persons, this figure being 20% above the 1964 level. The increase in the contribution to the G.D.P. per worker therefore amounts to 2.6% per annum.

20. Basic iron and steel*

244. This sector comprises the manufacture of iron and steel, ferro-alloys, and iron castings. (The casting operations of engineering industries are excluded from this sector and included in the sector under which the engineering industry is classified.)

245. It is expected that the production of this sector will expand at a rate considerably higher than that of the economy as a whole. The estimated growth rate for the production of this sector is, namely, 8.1% per annum, as compared with a global growth rate of 5.4% for the economy. This high rate of growth is to some extent the result of the expected decline in the share of imports in the total supply, but is due particularly to the rapid expansion in the intermediate demand for basic iron and steel products. As regards imports, these increased sharply from 1963 to 1964, so that the 1964 level may be regarded as exceptionally high. Imports will possibly decrease as soon as the local production capacity is able to meet the domestic demand, which has also increased sharply since 1963. It is expected further that certain kinds of special steel which are not produced locally at present and which are consequently imported, will be manufactured in the Republic by 1970. In view of these considerations, imports of iron and steel products are put at R28 million for 1970, as compared with R46.0 million for 1964.

Table 25

Basic iron and steel products
(I.S.I.C. 341)

| | | 1964 | 1970 |
|---|---|---|---|
| Production | R million | 279.9 | 445.8 |
| Imports | " | 46.0 | 28.0 |
| Total supply = total demand | " | 325.9 | 473.8 |
| Final domestic demand | " | 70.7 | 79.9 |
| Intermediate demand | " | 218.9 | 335.7 |
| Exports | " | 36.3 | 58.2 |
| Gross capital formation | " | | 65.1 |
| Employment: | | | |
| Total | 1000 | 41.9 | 51.5 |
| Whites | " | 18.1 | 22.0 |
| Non-Whites | " | 23.8 | 29.5 |
| Contribution to the G.D.P. per worker | R | 3593 | 4654 |

246. In regard to the demand for basic iron and steel products, the final domestic demand absorbed about one-third of the supply in 1964. The final domestic demand consists mainly of basic iron and steel products required for capital formation in the form of buildings and other construction works. In 1964, however, the estimated increase in the stocks of basic iron and steel products also constituted an important part of the total final domestic demand. Since provision was made for a much smaller increase in stocks for 1970, as compared with the estimated increase for 1964, the figures in Table 25 show a rise of only 2.1% per annum in the final domestic demand for basic iron and steel products between 1964 and 1970. If changes in inventories are excluded, the final domestic demand increases by 5.6% per annum. As regards the intermediate demand, basic iron and steel products are used mainly by the following sectors, namely metal products, machinery, motor vehicles, transport and agriculture. Owing to the rapid expansion foreseen in the case of some of these sectors, the intermediate demand for basic iron and steel also increases rapidly, namely by 7.4% per annum.

247. Provision is made for a large increase in the exports of basic iron and steel products between 1964 and 1970, the figure rising from R36.6 million in the base year to R58.2 million in 1970. This amounts to an average annual growth rate of 8.2%.

248. With reference to capital formation in the basic iron and steel sector, it is estimated that R325.2 million should be invested in fixed assets in order to maintain and expand production capacity to the extent required for the calculated increase in production over the six-year period from 1964 to 1970. For 1970, the level of gross capital formation is estimated at R65.1 million.

249. Employment will increase from 41,900 persons in 1964 to 51,500 in 1970, i.e.

by 23%. This increase in employment implies an annual growth rate of 4.4% in the contribution to the G.D.P. per worker.

21. Basic non-ferrous metals*

250. This sector embraces the manufacture and forging of non-ferrous metals in such basic forms as ingots, bars, sections, sheets, etc. As has already been mentioned, many mines refine the ore and produce these basic forms, with the result that their products are classified as products of the basic non-ferrous metal sector in the official export statistics. In order to equate demand and supply, however, these products of the mines were kept under the other mining and quarrying sector. The production and exports of non-ferrous metals are therefore greater than suggested by the figures shown in Table 26. In 1964, for example, the value of non-ferrous metals produced by the mines for the export market amounted to R60 million.

251. In regard to the industrial production of basic non-ferrous metals, Table 26 shows that this will increase from R82.9 million in 1964 to R128.9 million in 1970, or at a growth rate of 7.6% per annum. On the other hand, a decline in imports is expected, namely from R46.3 million in 1964 to R44.0 million in 1970. The reasons for this are, firstly, the exceptionally high level of imports in the base year, and, secondly, the fact that certain basic non-ferrous metals, such as refined copper, which are imported at present, will probably be produced locally by 1970.

Table 26

Basic Non-ferrous Metals
(I.S.I.C. 342)

| | | 1964 | 1970 |
|---|---|---|---|
| Production | R million | 82.9 | 128.9 |
| Imports | " | 46.3 | 44.0 |
| Total supply = total demand | " | 129.2 | 172.9 |
| Final domestic demand | " | 9.4 | 8.2 |
| Intermediate demand | " | 117.5 | 161.5 |
| Exports | " | 2.3 | 3.2 |
| Gross capital formation | " | | 8.9 |
| Employment : | | | |
| Total | 1000 | 8.7 | 12.6 |
| Whites | " | 2.5 | 3.4 |
| Non-Whites | " | 6.2 | 9.2 |
| Contribution to the G.D.P. per worker | R | 2109 | 2272 |

252. In respect of the demand for basic non-ferrous metals, Table 26 makes provision for a decline in the final domestic demand from R9.4 million in 1964 to R8.2 million in 1970. The major component of the final domestic demand in 1964 was made up by changes in inventories. The decline in the total final domestic demand between 1964 and 1970 must

therefore be attributed to the fact that provision is made for a smaller increase in the stocks of these products for 1970 than is estimated for 1964. The principal outlet for basic non-ferrous metals is, however, the intermediate demand. These products are used mainly by the basic non-ferrous metal sector itself, the electrical machinery and equipment sector, the transport and communications sector, the metal-product sector and the gold mines. According to Table 26, intermediate demand increases from R117.5 million in 1964 to R161.5 million in 1970, or by 5.5% per annum.

253. Exports of the products of this sector, as classified here, are insignificant, being put at R3.2 million for 1970.

254. As regards the capital required by the basic non-ferrous metal sector, the gross fixed capital formation will amount to R46 million over the whole programming period. For the year 1970 the level of gross capital formation is put at R8.9 million.

255. Total employment is estimated to increase from 8,700 persons in 1964 to 12,600 in 1970, this figure being 45% above the 1964 level. This trend in employment implies an annual increase of 1.3% in the contribution to the G.D.P. per worker.

22. Metal products*

256. This sector includes the processing of basic metals into final products such as metal pipes and pipe fittings, sheet-metal products, tinware, cables and fencing wire, steel for construction works, etc.

257. In so far as the supply of metal products is concerned, the 1964 production is put at R423.1 million and is expected to increase by 6.5% per annum between 1964 and 1970. Imports of metal products constitute only a small percentage of the total supply and were equal to 14% of production in 1964. The imports shown in Table 27 for 1970 are equal to 11% of local production.

Table 27

Metal Products
(I.S.I.C. 350)

| | | 1964 | 1970 |
|---|---|---|---|
| Production | R million | 423.1 | 618.1 |
| Imports | " | 61.1 | 66.0 |
| Total supply = total demand | " | 484.2 | 684.1 |
| Final domestic demand | " | 278.0 | 381.5 |
| Intermediate demand | " | 196.4 | 288.5 |
| Exports | " | 9.8 | 14.1 |
| Gross capital formation | " | | 29.3 |
| Employment : | | | |
| Total | 1000 | 95.6 | 110.9 |
| Whites | " | 26.5 | 30.4 |
| Non-Whites | " | 69.1 | 80.5 |
| Contribution to the G.D.P. per worker | R | 1747 | 2202 |

258. In regard to the demand for metal products, the final domestic demand expands at a rate of 5.4% per annum between 1964 and 1970. The intermediate demand, on the other hand, grows more rapidly, increasing by 6.6% per annum. All the sectors distinguished in this report make use of metal products in their production processes but the most important users are processed foodstuffs, agriculture, gold mining, the metal product sector itself, and the machinery sector.

259. Metal-product exports are estimated at R14.1 million for 1970, as compared with R9.8 million in 1964. The rate of growth of exports is therefore about the same as that of production in this sector.

260. In order to make the estimated expansion in production possible, gross capital formation amounting to R142 million will be required over the programming period. For 1970, the level of gross capital formation is put at R29.3 million.

261. In 1964 there were 95,600 persons working in the metal sector, and the total employment for 1970 is estimated at 110,900 persons, this figure being 16% above the 1964 level. On the basis of the expansion of output, this increase in employment means that the contribution to the G.D.P. per worker increases by 3.9% per annum.

23. Machinery (excluding electrical machinery)*

262. This sector comprises the manufacture of agricultural and industrial tractors, and all machinery and prime movers other than electrical equipment. Machines powered by built-in electrical motors, with the exception of domestic electrical appliances, are also included.

263. Imports are the main source of supply of machinery (including components), only 40% of the total demand having been met by local production in 1964. According to Table 28, local production will rapidly expand between 1964 and 1970, increasing at a rate of 8.7% per annum. Imports, on the other hand, grow by only 3.8% per annum. This relatively slow growth in imports can be ascribed partly to the exceptionally high level of imports of machinery in the base year, and partly to the expectation that certain machines which are imported at present, will be manufactured in South Africa by 1970.

Table 28

Machinery (except electrical machinery)
(I.S.I.C. 360)

| | | 1964 | 1970 |
|---|---|---|---|
| Production | R million | 204.5 | 337.2 |
| Imports | " | 315.2 | 393.8 |
| Total supply = total demand | " | 519.7 | 731.0 |
| Final domestic demand | " | 370.4 | 516.9 |
| Intermediate demand | " | 135.0 | 193.2 |
| Exports | " | 14.3 | 20.9 |
| Gross capital formation | " | | 34.5 |
| Employment : | | | |
| Total | 1000 | 41.2 | 49.5 |
| Whites | " | 19.2 | 22.7 |
| Non-Whites | " | 22.0 | 26.8 |
| Contribution to the G.D.P. per worker | R | 2152 | 2546 |

264. As regards the outlets for machinery, the major part of the total supply is destined for the final domestic demand, namely for capital formation. The final domestic demand, as shown in Table 28, increases by 5.7% per annum, while the growth rate of the intermediate demand amounts to 6.2% per annum. The intermediate demand consists mainly of spare parts and components required by all the sectors distinguished here. The major users however, are the gold mines, agriculture and the machinery sector itself.

265. In 1964 this sector exported 7.5% of its production, i.e. machinery to the value of R14.3 million, while for 1970 exports of machinery and components are put at R20.9 million.

266. In respect of capital formation in the machinery sector, the total gross capital formation will amount to R151 million over the whole six-year period, the figure for 1970 being put at R34.5 million.

267. There were 41,200 persons working in this sector in 1964, the employment for 1970 being estimated at 49,500 persons. On the basis of the expansion in production, this increase of 19% in employment means a rise of 3.1% per annum in the contribution to the G.D.P. per worker.

24. Electrical machinery and equipment*

268. This sector includes electrical equipment for the generation, storage and distribution of electrical power; electrical apparatus, including household appliances; electric lamps; electrical communication equipment such as radios; batteries and electronic valves.

269. In regard to the supply of electrical equipment and machinery, production is estimated to increase at the rate of 7.8% per annum. Imported electrical machinery and

equipment, which amounted to 60% of production in 1964, will decline in importance during the programming period, and for 1970 imports are put at R109.9 million, this figure being equal to 46% of production.

Table 29

Electrical machinery and equipment
(I.S.I.C. 370)

| | | 1964 | 1970 |
|---|---|---|---|
| Production | R million | 152.3 | 237.4 |
| Imports | " | 91.1 | 109.9 |
| Total supply = total demand | " | 243.4 | 347.3 |
| Final domestic demand | " | 163.0 | 231.5 |
| Intermediate demand | " | 76.9 | 110.6 |
| Exports | " | 3.5 | 5.2 |
| Gross capital formation | " | | 8.4 |
| Employment : | | | |
| Total | 1000 | 32.4 | 40.7 |
| Whites | " | 14.0 | 17.4 |
| Non-Whites | " | 18.4 | 23.3 |
| Contribution to the G.D.P. per worker | R | 1627 | 2013 |

270. As regards the marketing of electrical machinery and equipment, the final domestic demand is the main outlet for the products of this sector. Although private consumers also purchase the products of this sector, capital formation accounts for the major part of the final domestic demand. The annual increase in the final domestic demand is estimated at 6.0%. With reference to the intermediate demand, gold mining, the machinery sector, the motor vehicle sector, the transport and communications sector and the electrical machinery and equipment sector itself are the principal intermediate users of the products of this sector. The growth rate of the intermediate demand, as shown in Table 29, amounts to 6.4% per annum.

271. Exports are estimated at R5.2 million for 1970, as compared with R3.5 million in 1964.

272. It is estimated that gross capital formation totalling R42.2 million will be required for the increase in production over the programming period. For 1970, the level of gross capital formation is put at R8.4 million.

273. The estimated increase in employment is 26%, which implies an increase of 3.6% per annum in the contribution to the G.D.P. per worker.

25. Transport equipment (excluding motor vehicles)*

274. This sector comprises the manufacture of a wide range of goods such as aircraft, railway transport equipment, ships and bicycles. Blacksmithing is also included.

In so far as local production is concerned, the manufacture of railway transport equipment is the most important item.

275. The production of this sector, which amounted to R52.9 million in 1964, is estimated to increase by 8.8% per annum. Imports of transport equipment exceeded local production in 1964, and the rate of growth of imports is put at 6.1% per annum, this being slightly lower than the growth rate of production.

Table 30

Transport equipment (excluding motor vehicles)
(I.S.I.C. 381, 382, 385 and 389)

| | | 1964 | 1970 |
|---|---|---|---|
| Production | R million | 52.9 | 87.7 |
| Imports | " | 59.0 | 84.2 |
| Total supply = total demand | " | 111.9 | 171.9 |
| Final domestic demand | " | 88.8 | 139.7 |
| Intermediate demand | " | 17.8 | 24.7 |
| Exports | " | 5.3 | 7.5 |
| Gross capital formation | " | | 3.0 |
| Employment : | | | |
| Total | 1000 | 10.9 | 15.5 |
| Whites | | 3.9 | 5.2 |
| Non-Whites | | 7.0 | 10.3 |
| Contribution to the G.D.P. per worker | R | 1674 | 1937 |

276. The final domestic demand is the main outlet for the products of the transport equipment (excluding motor vehicles) sector, these products being required mainly for capital formation. The growth rate for the final domestic demand is estimated to be 7.9% per annum. The intermediate demand for the products of this sector is relatively small, and the principal sectors using these products are the gold mines, transport and communications, and the transport equipment sector itself. The annual growth rate of the intermediate demand amounts to 5.6%.

277. In regard to exports of transport equipment, these are estimated at R7.5 million for 1970, as compared with R5.3 million in 1964.

278. It is estimated that the gross fixed capital formation in this sector will amount to R16 million over the entire 6-year period. For 1970, the level of gross capital formation will be R3.0 million.

279. There were 10,900 persons working in this sector in 1964, and in 1970 employment will be 42% above the 1964 level. On the basis of the expansion in production, this increase in employment means that the contribution to the G.D.P. per worker will grow by 2.5% per annum.

26. Motor vehicles and repair*

280. This sector embraces the manufacture and assembly of motor vehicles (including trucks), the production of motor components, and the repair of motor vehicles.

281. The 1970 level of production by this sector will be 50% higher than the exceptionally high level of 1964. This expansion amounts to an average annual growth rate of 7.0%. As regards imports of the products of this sector, these are estimated at R245.9 million in 1970, this figure being only 10% above the 1964 level.

Table 31

Motor vehicles and repair
(I.S.I.C. 383 and 384)

| | | 1964 | 1970 |
|---|---|---|---|
| Production | R million | 320.2 | 480.8 |
| Imports | " | 223.3 | 245.9 |
| Total supply = total demand | " | 543.5 | 726.7 |
| Final domestic demand | " | 338.2 | 440.8 |
| Intermediate demand | " | 202.4 | 277.1 |
| Exports | " | 2.9 | 8.8 |
| Gross capital formation | " | | 28.2 |
| Employment : | | | |
| Total | 1000 | 105.7 | 155.4 |
| Whites | " | 52.8 | 75.2 |
| Non-Whites | " | 52.9 | 80.2 |
| Contribution to the G.D.P. per worker | R | 920 | 939 |

282. In so far as the demand for motor vehicles and repair service are concerned, the final domestic demand is the main outlet. The final domestic demand consists mainly of private consumption expenditure and capital formation. Since the final domestic demand was at an exceptionally high level in 1964, the base year, its growth rate for the period between 1964 and 1970 amounts to only 4.5% per annum, which is even lower than that of the net national income. With reference to the intermediate demand, the main sectors which use the products or services of this sector and which regard expenditure thereon as part of their running costs, are the motor-vehicle and repair sector itself, transport and communications, commerce and agriculture. (The purchase of new vehicles by businesses is, of course, included under capital formation, i.e. under final domestic demand.) The growth rate of the intermediate demand is put at 5.4% per annum.

283. In 1964 exports of the products of this sector amounted to R2.9 million, and for 1970 they are estimated at R8.8 million.

284. In respect of capital formation in the motor vehicle and repair sector, gross

capital formation totalling R141 million will be required over the whole 6-year period to make the estimated increase in production possible. For 1970 the level of gross capital formation amounts to R28.2 million.

285. Owing to the rapid expansion in output, employment in this sector will also increase rapidly. The increase in employment between 1964 and 1970 is estimated at 47%, which means that the contribution to the G.D.P. per worker grows by an average of 0.4% per annum.

27. Miscellaneous manufacturing industry

286. The main activities included in this sector are the cutting and polishing of diamonds, and the manufacture of plastic products. It also embraces the manufacture and repair of the following products : professional , scientific, measuring and controlling instruments; optical and photographic goods; watches and clocks; jewellery and related articles; electroplated products; musical instruments; toys and sporting accessories; brushes and brooms; rubber stamps; buttons and buckles; and signs and advertising displays.

287. As regards the supply of these products, production will, according to the figures given in Table 32, increase by 6.9% per annum. Owing to the high level of imports in 1964, imports for 1970 will be only 18% higher than in 1964, this rise being equal to an annual average growth rate of 2.8%.

Table 32

Miscellaneous Manufacturing Industry
(I.S.I.C. 391 to 399)

| | | 1964 | 1970 |
|---|---|---|---|
| Production | R million | 112.5 | 167.8 |
| Imports | " | 64.7 | 76.3 |
| Total supply = total demand | " | 177.2 | 244.1 |
| Final domestic demand | " | 112.2 | 149.5 |
| Intermediate demand | " | 43.3 | 60.6 |
| Exports | " | 21.7 | 34.0 |
| Gross capital formation | " | | 3.3 |
| Employment : | | | |
| Total | 1000 | 20.7 | 27.6 |
| Whites | " | 5.2 | 6.9 |
| Non-Whites | " | 15.5 | 20.7 |
| Contribution to the G.D.P. per worker | R | 1741 | 1948 |

288. The final domestic demand, of which private consumption expenditure is the main component, will increase by 4.9% per annum during the programming period. The growth rate of the intermediate demand is estimated at 5.8% per annum. The principal sectors using the products of the miscellaneous manufacturing industry sector are miscellaneous services,

commerce and electrical machinery and equipment.

289. In regard to exports of this sector, cut and synthetic diamonds are the most important products exported. For 1970, exports are put at R34.0 million, as compared with R21.7 million in 1964.

290. The level of gross capital formation is estimated at R3.3 million for 1970, and for the whole 6-year period the total gross capital formation will amount to R17 million.

291. In 1964 there were 20,700 persons working in this sector, and for 1970 employment is estimated at 27,600 persons. This development implies a growth of 1.9% per annum in the contribution to the G.D.P. per worker.

28. Electricity, gas and water

292. This sector comprises the generation and distribution of electricity; the manufacture and distribution of gas; and the pumping, purification and distribution of water by private and public undertakings, including the water, gas and electricity departments of local authorities.

293. As regards the supply of electricity, gas and water, domestic production is of course the only source of supply. Production increases more rapidly than the overall rate of economic growth, namely by 6.0% per annum.

Table 33

Electricity, gas and water
(I.S.I.C. 511, 512, 513 and 521)

| | | 1964 | 1970 |
|---|---|---|---|
| Production | R million | 212.5 | 301.4 |
| Imports | " | - | - |
| Total supply = total demand | " | 212.5 | 301.4 |
| Final fomestic demand | " | 96.0 | 138.0 |
| Intermediate demand | " | 116.5 | 163.4 |
| Exports | " | - | - |
| Gross capital formation | " | | 77.3 |
| Employment : | | | |
| Total | 1,000 | 42.4 | 48.5 |
| Whites | " | 12.8 | 14.6 |
| Non-Whites | " | 29.6 | 33.9 |
| Contribution to the G.D.P. per worker | R | 3329 | 4128 |

294. The high growth in output can be ascribed mainly to the rapid expansion in the final domestic demand for electricity, gas and water, which increases by 6.3% per annum between 1964 and 1970. The intermediate demand, on the other hand, expands at a slightly

lower rate, increasing by 5.8% per annum, which is nevertheless higher than the growth rate for the economy as a whole.

295. In order to make the estimated increase in production possible, gross capital formation totalling R408 million over the 6-years from 1964 to 1970 will be required by this sector. For 1970 the gross capital formation in the electricity, gas and water sector is estimated at R77 million.

296. The employment figure in this sector was 42,400 in 1964 and, according to Table 33, will increase to 48,500 in 1970. This course of employment implies an average annual increase of 3.7% in the contribution to the G.D.P. per worker.

29. Transport and communications

297. The transport of persons and goods by road, rail, sea and air, whether by public or private enterprise, is included in this sector, which also embraces postal, telegraphic and telephone services.

298. The production of the transport and communications sector, measured by its income (at 1964 rates), will increase by 5.4% per annum. This sector therefore grows at more or less the same rate as the economy. The value of imports shown for 1964, namely R6.9 million, represents harbour dues paid by South Africans ships in foreign ports, and also payments to other countries for the conveyance of mail. These payments are estimated at R9.0 million for 1970.

Table 34

Transport and communications
(I.S.I.C. 71, 72 and 73)

| | | 1964 | 1970 |
|---|---|---|---|
| Production | R million | 800.2 | 1,095.6 |
| Imports | " | 6.9 | 9.0 |
| Total supply = total demand | " | 807.1 | 1,104.6 |
| Final domestic demand | " | 445.6 | 612.0 |
| Intermediate demand | " | 274.0 | 382.3 |
| Exports | " | 87.5 | 110.3 |
| Gross capital formation | " | | 312.8 |
| Employment : | | | |
| Total | 1000 | 330.7 | 402.6 |
| Whites | " | 166.9 | 192.0 |
| Non-Whites | " | 163.8 | 210.6 |
| Contribution to the G.D.P. per worker | R | 1850 | 2081 |

299. As regards the demand for services rendered by this sector, the final domestic demand is the principal user. The final domestic demand consists of the travelling expenses

of private persons and public authorities, as well as the cost of transporting goods purchased by final consumers. The inclusion of the latter item arises from the fact that the demand for commodities was valued at producer prices in the previous tables. According to Table 34, the final domestic demand increases by 5.4% per annum. The intermediate demand consists mainly of the transport costs payable on raw materials and components used in the production process and also includes travelling, postal, telephone and telegraphic expenses incurred by business concerns. The growth rate of the intermediate demand is estimated at 5.7% per annum for the period between 1964 and 1970.

300. Exports shown for this sector represent the cost of transporting export goods from the point of production to the place of consignment overseas. It also includes freightage, earned by South African shipping companies, as well as harbour dues received. These exports are put at R87.5 million for 1964 and at R110.3 million for 1970.

301. It is estimated that the gross capital formation during the entire programming period will amount to R1,656 million. In 1970, the gross capital formation will be R312.8 million.

302. In regard to employment in this sector, Table 34 shows that the figure will increase from 330,700 persons in 1964 to 402,600 persons in 1970. This 22% increase in employment implies an annual growth of 2.0% in the contribution to the G.D.P. per worker.

30. Trade *

303. This sector embraces the wholesale, retail and motor trades, as well as commercial agents.

304. The production of this sector is defined as the gross margin (or gross profit) of traders, and the course of production is therefore determined by the composition and volume of the goods trade. The rate of growth of the output of this sector consequently keeps pace with the general rate of economic expansion and according to Table 35 increases by 5.3% per annum.

Table 35

Trade
(I.S.I.C. 661 and 612)

| | | 1964 | 1970 |
|---|---|---|---|
| Production | R million | 1,401.0 | 1,914.7 |
| Imports | " | - | - |
| Total supply = total demand | " | 1,401.0 | 1,914.7 |
| Final domestic demand | " | 1,080.0 | 1,475.4 |
| Intermediate demand | " | 210.9 | 300.4 |
| Exports | " | 110.1 | 138.9 |
| Gross capital formation | " | | 65.0 |
| Employment : | | | |
| Total | 1000 | 360.5 | 433.3 |
| Whites | " | 168.5 | 189.1 |
| Non-Whites | " | 192.0 | 244.2 |
| Contribution to the G.D.P. per worker | R | 2962 | 3368 |

305. The final domestic demand as shown in Table 35 represents the gross margin earned by traders on goods purchased by final consumers. Its course is therefore also determined by the changes in the volume and composition of the final domestic demand. The growth of this item is estimated at 5.3% per annum for the programming period. Similarly, the intermediate demand for the services of this sector is defined as the trade margin earned on goods required for the production process, and the exports shown for this sector are the trade margins earned on exported products.

306. The gross fixed capital formation required by this sector will amount to R438 million over the entire 6-year period. For 1970, the level of gross capital formation is put at R65 million.

307. For 1964, the employment figure is estimated at 360,500 persons, and for 1970 at 433,300 persons. On the basis of these estimates the contribution to the G.D.P. per worker increases by 2.2% per annum.

31. Miscellaneous services

308. This sector includes a variety of activities such as financial services (e.g. banks and insurance companies); community services (e.g. private education and medical services); business services (e.g. accountants, advocates, and attorneys); recreation and entertainment services; personal services (e.g. hairdressers); and household services. For the sake of completeness, salaries and wages paid by, as well as employment in, the public sector are also included in this sector.

309. As regards the supply of miscellaneous services, the production of such services increases by 5.6% per annum according to the estimates given in Table 36, this figure being slightly higher than the growth rate for the economy as a whole. Services imports are identical with those estimated for the balance of payments in Part 2, Section (2) (non-factor services), except that freightage and insurance charges on imported goods are excluded here.

Table 36

Miscellaneous services
(I.S.I.C. 62, 63 and 80)

| | | 1964 | 1970 |
|---|---|---|---|
| Production | R million | 2,006.1 | 2,782.4 |
| Imports | " | 113.9 | 158.0 |
| Total supply = total demand | " | 2.120.0 | 2,940.4 |
| Final domestic demand | " | 1,634.3 | 2,257.5 |
| Intermediate demand | " | 411.0 | 576.9 |
| Exports | " | 74.7 | 106.0 |
| Gross capital formation | " | | 860.9 |
| Employment : | | | |
| Total | 1000 | 1,596.4 | 1,935.3 |
| Whites | " | 380.0 | 469.6 |
| Non-Whites | " | 1,216.4 | 1,465.7 |
| Contribution to the G.D.P. per worker | R | 1,145 | 1,306 |

310. The final domestic demand is the principal component of the total demand for services, and it is estimated that this will increase by 5.5% per annum. The intermediate demand represents services rendered to businesses, and, according to the figures in Table 36, it will increase by 5.8% per annum.

311. As regards the services exports shown in Table 36, the estimates are based on those for the balance of payments as in Part 2 Section (2). For the sectoral analyses, the balance-of-payment estimates of services were, however, adjusted for ship's stores supplied, freightage, harbour dues received, income from ship repairs, etc. These items are included under the exports of various sectors rendering the services.

312. The gross capital formation in this sector, which includes capital formation by public authorities for general administrative purposes, is estimated at R860.9 million for 1970. For the whole 6-year period from 1964 to 1970 the total gross capital formation in this sector amounts to R4,298 million.

313. In respect of employment the figure is estimated at 1,596,400 persons in 1964, and at 1,935,300 persons for 1970. This trend in employment implies that the contribution to the G.D.P. per worker increases by 2.2% per annum in the services sector.

32. Construction.

314. This sector includes building and contracting, other construction work such as civil engineering, shopfitting, painting and decorating, plumbing, waterboring, and electrical contracting.

315. As has already been mentioned, construction was not dealt with as a separate sector in the sectoral analysis, and the materials used in constructions are included in final domestic demand for the products of the respective sectors. With a view to comparing the total of the sectoral figures with the global figures it was, necessary, however, to make additional calculations of the employment in, and the contribution to the G.D.P. by, the construction sector.

316. In regard to the production of the construction sector, Table 37 shows that this will increase from R321.0 million in 1964 (when it was at an exceptionally high level) to R436.2 million in 1970, or at an average growth rate of 5.2% per annum.

Table 37

Construction
(I.S.I.C. 400)

| | | 1964 | 1970 |
|---|---|---|---|
| Production | R million | 321.0 | 436.2 |
| Final domestic demand | " | 321.0 | 436.2 |
| Gross capital formation | " | | 23.7 |
| Employment : | | | |
| Total | 1000 | 246.8 | 335.0 |
| Whites | " | 60.3 | 81.4 |
| Non-Whites | " | 186.5 | 253.6 |
| Contribution to the G.D.P. per worker | R | 1180 | 1182 |

317. In respect of capital formation in the construction sector itself, Table 37 shows that R23.7 million will be spent in 1970 on the replacement of old assets and the acquisition of new fixed assets. For the whole of the 6-year period the gross fixed capital formation is estimated at R126 million.

318. Employment increases at about the same rate as the production of this sector, namely from 246,800 persons in 1964 to 335,000 in 1970. The contribution to the G.D.P. per worker therefore remains virtually constant, and little provision was made for an increase in productivity in this sector.

## PART 3

## SUMMARY AND CONCLUSIONS

### (1) Introduction

319. The quantitative implications of three alternative rates of growth have been discussed in the foregoing paragraphs. These calculations indicate the estimated course of various global and sectoral economic magnitudes in the event of one of the selected growth rates being maintained over the programming period as a whole. The actual future development of the economy cannot be derived from these calculations. It is possible, however, to select with the aid of the quantitative implications of the various global growth rates, the most advantageous growth rate attainable with the available production factors and then to aim at the attainment of that rate of growth in a purposeful manner.

### (2) Summary of results

320. In regard to the attainability of the various growth alternatives, it would appear that South Africa can achieve a growth rate of 4.9% per annum fairly easily with the production factors (labour, capital, etc.) available at present. It was found that the level of savings would be sufficient to finance the capital formation required for this growth rate and that the current account of the balance of payments would at the same time still show appreciable surpluses. The growth in the demand for White labour at this rate of development is expected to be higher than the growth in the supply, and consequently the position in regard to the White labour force will be more strained by 1970 than in 1964, but less strained than was originally estimated in the first E.D.P. As a result of the steps taken to increase the supply of skilled labour (see paragraph 341), it is nevertheless foreseen that the maintenance of a global growth rate of 4.9% per annum, will indeed be possible in so far as the availability of White labour is concerned. The demand for Non-White labour is growing at more or less the same rate as the supply, which means that the level of unemployment and under-employment of the Non-Whites will not decline over the E.D.P. period. In order to reduce the number of unemployed Non-Whites it is necessary to aim at a higher rate of economic development.

321. A growth rate of 5.9% per annum will result in a substantial decrease in unemployment among Non-Whites, namely from 258,900 persons in 1964 to 127,600 in 1970. This decline can be brought about only if the shortage of White workers, which is estimated to be 57,100 persons in 1970 for this growth rate, can be eliminated. The shortage of White labour at this rate of growth is, however, assuming such serious proportions that the maintenance of an annual growth rate of 5.9% seems hardly possible. The maintenance of this growth rate over the whole programming period also seems unattainable on the strength of other considerations as well. The analyses indicate that at this rate of growth, for example, private consumption expenditure for the first 4 years of the programming period will have to be kept at a very low level. The amount of savings will nevertheless not initially be sufficient for the capital formation required and for an acceptable surplus on the current account of the balance

of payments. As a result of this state of affairs the maintenance of this growth rate, especially during the first years of the programming period, also appears doubtful from a monetary and financial point of view.

322. It seems that 5.4% is the obvious target rate of growth. The 5.4% growth rate between 1964 and 1970 is in any case a continuation of the 5.5% target rate of growth for 1963-1969 recommended, on the basis of the first E.D.P., by the Economic Advisory Council of the Prime Minister and accepted by the Government. This rate of growth will also allow for a considerable decrease in unemployment. It is true that the position in respect of White labour will become even more strained over the programming period than it was in the base year 1964. As a result of the expansion of the educational facilities for Whites and of the opportunities for education and more advanced work for Non-Whites within the broad framework of the Government's policy, and on the assumption that a high level of immigration will be maintained and that a satisfactory increase in productivity will be attained, it would appear, however, that the quality and quantity of the skilled labour force will be adequate for the realisation of this growth rate. In regard to the availability of the financial means required for this growth alternative, calculations show that savings should in general be sufficient to finance the capital formation needed and to provide a satisfactory surplus on the current account of the balance of payments. It is necessary, however, to restrict private consumption expenditure to a relatively low level in the initial years of the programming period.

323. The 5.4% growth alternative appears to be the most desirable since, in the first place, it is within the reach of the South African economy, and, secondly, it implies the most satisfactory increase in the per caput income, as well as the most satisfactory decline in unemployment. The implications of only this growth rate will be discussed in more detail.

(3) Policy implications of a 5.4% growth rate

(a) National income and expenditure

323. It is estimated that the net national income will increase at the rate of 5.1% per annum if the G.D.P. grows at an average annual rate of 5.4%, which means that the real national income per caput will increase at an average rate of 2.7% per annum during the programming period. This rate of increase compares favourably with the average annual rate of 2.2% attained during the twelve-year period from 1952 to 1964.

325. On the expenditure side it is estimated that private consumption expenditure will increase at an average annual rate of 5%, which means that such expenditure per caput will rise by 2.6% per annum. It is necessary to restrict private consumption expenditure during the initial years of the programming period in order to obtain an acceptable balance on the current account of the balance of payments. It would be desirable to keep private consumption expenditure for the first two years, namely 1965 and 1966, at the minimum level of 71.4% of net national income. This implies an increase of 1.1% and 2.7% in the consumption expenditure per caput in 1965 and 1966, respectively. After 1966 this expenditure item can be

allowed to increase as a percentage of net national income to a level as "normal" as possible, namely, 72.25% of national income. This means that the consumption per caput from 1967 increases by 2.97% per annum, which is rather liberal in comparison with the growth in private consumption expenditure per caput in the past.

326. Provision is made for an increase of 43% in Government consumption expenditure from 1964 to 1970. This increase will occur particularly during the first year of the programming period when defence expenditure will reach the level provided for in the published budget. Thereafter Government consumption expenditure as a whole will increase at a rate somewhat higher than 4% per annum. As a result of these developments, Government consumption expenditure as a percentage of net national income increases from 13.7% in 1964 to 15.3% in 1965, after which it gradually decreases to 14.55% in 1970 (also see paragraph 343). Since the development of the balance of payments must be closely watched for the 5.4% growth alternative, it follows that Government consumption expenditure must not be allowed to exceed the level indicated in Table 1 to any significant extent.[25]

327. For the realisation of an average annual rate of growth of 5.4% in the G.D.P. over the programming period, it is necessary for net fixed capital formation to increase from R856 million in 1964 to about R1,087 million in 1970, or by 28%. In 1964 the gross fixed capital formation was equal to 19.73% of the G.D.P., and it would seem that this level will have to be maintained during the programming period if the economic growth envisaged is to be attained.

(b) The balance of payments

328. In the case of the 5.4% growth alternative surpluses on the current account are foreseen for all the years of the programming period. These amounts change from a target figure of R2 million in 1965 to R62 million in 1970, and, if the capital account of the balance of payments is in equilibrium, it is expected that the gold and foreign exchange reserves will increase over the programming period from R483 million at the end of 1964 to R795 million in 1970. It is of course impossible to foresee what the course of the capital account of the balance of payments will actually be. Account must, however, be taken of the fact that the present known contractual capital repayments to which South Africa was already bound at the end of September, 1965, were R348 million for the period up to 30th December 1970[26], this sum being greater than the increase in the gold and foreign exchange reserves mentioned above. On the other hand it can be expected that, as in the past, there will be a capital inflow which will partly, if not wholly, offset the outflow of capital.

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25) Unless a lower growth rate or a decrease in private consumption expenditure is accepted.

26) Irrespective of further foreign loans, with consequent corresponding capital repayments commitments, obtained during the last 3 months of 1965.

329. The position in regard to the balance of payments for the 5.4% growth rate can be stated as follows. Developments on the current account of the balance of payments are of such a nature that the attainment of this growth rate is possible from a monetary and financial point of view. There is, however, little latitude for a deficit on the capital account of the balance of payments, or in other words, for a net outflow of capital.

330. From the foregoing it is clear that, unless a considerable inflow of capital takes place, there will be little latitude in the balance of payments position. The most important implications of this state of affairs for practical policy making are the following :

(i) If private consumption expenditure tends, to any significant extent, to exceed the level indicated in this programme, rapid and effective steps will have to be taken to curb it.

(ii) Government consumption expenditure must be kept within the indicated limits.

(iii) Care must be taken to ensure that imports of goods and services do not to any significant extent, exceed the amounts indicated for this purpose.

(iv) The export targets must at least be realised.

331. It can be expected that the balance on the current account of the balance of payments will also develop as indicated in the programme if domestic production and consumption follow the pattern foreseen in the programme. The above statement implicitly accepts that imports and exports will develop in their estimated relation to domestic production and consumption. In this programme it is provided that imports as a percentage of the G.D.P. will decrease from 20.3% in 1964 to 17.0% in 1970. In the light of the level of imports in 1964 and of historical developments in this connection, it seems highly likely that this structural change in the South African economy will be brought about by, inter alia, Government policy in regard to import replacement and by the natural effect of higher production and greater diversification in secondary industry.

332. A positive import replacement policy is followed by the Government in order to encourage the local manufacture of goods otherwise imported. If the Government can be convinced that an imported article is essential for the country and that it can be produced economically and in sufficient quantities locally, it is willing to give entrepreneurs an advance indication of the extent of tariff protection which it is prepared to grant. In order to encourage this type of industrial development still further, the Board of Trade and Industries is investigating the gaps in the country's production structure and is preparing detailed reports, which are published for general information on those products which are at present still being imported but which the Board considers suitable for local production. Reports on the textile and chemical industries have already appeared, and at present the Board is bringing the reports on the chemical and related industries up to date. The Board is at the moment also envestigating the wood and related industries, as well as the metal and metal-processing industries. An attempt will be made in 1966 to publish reports on these industries.

333. The growth rate in exports is put at 4.5% per annum. It seems that this target for exports is not unduly ambitious if account is taken of the fact that exports of agricultural products were low in the base year owing to unfavourable weather conditions.

334. The following measures to promote exports have been taken by the Government during recent years.[27]

(i) The establishment, about six years ago, by the Government in collaboration with private enterprise, of an export credit insurance corporation. This corporation guarantees export credits, and their growth is indicated inter alia by the fact that the Corporation's direct premium income for the year ended 30 June, 1965, exceeded that for the previous year by 55%.

(ii) The provision of funds for the medium and long-term financing of exports of capital goods by the Industrial Development Corporation, in collaboration with other bodies such as the South African Reserve Bank, the commercial banks and other financial institutions.

(iii) The extension of financial assistance to a national export organisation established by the private sector, as well as assistance to exporters in general. As an indication of the greater national awareness of the role which is already being played by this organisation, and which it will have to play in the future, it may be mentioned that its membership increased from 295 on 30 June, 1965, to 333 at the end of September, 1965.

(iv) Stimulation of the export trade by granting income tax concessions to exporters (exports via agricultural co-operatives being excluded) according to the extent to which they succeed in increasing their exports during a specific year.

(v) The reinforcement of South Africa's overseas trade representation.

335. The Government feels that by taking these measures to promote import replacement and exports it has already done a great deal in a country with a strongly developed system of private initiative.

(c) Employment

336. In regard to employment it is estimated that total employment will rise more rapidly than the increase in the supply of labour at the 5.4% growth alternative. Unemployment consequently decreases from an estimated 285,500 persons in 1964 to 175,100 persons in 1970. The latter figure, however, is the result of 205,700 Non-White workers and an absolute shortage of 30,600 Whites. It should be mentioned that considerable uncertainty still exists in regard to the absolute level of unemployment owing to defective and incomplete statistics. The relative changes in the level of unemployment over the E.D.P. period as a whole are, however, of much more importance than the absolute level of unemployment.

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27) These measures are discussed in detail in the Economic Development Programme for the Republic of South Africa 1964-1969, Government Printer, Pretoria, paragraph 276.

337. It is estimated that the demand for White labour will increase by 202,600 workers over the E.D.P. period, while the supply will increase only by 155,400. From these figures it is clear that White labour will become even scarcer over the E.D.P. period than it was in 1964. Whereas the number of unemployed and unclassified Whites in 1964 is put at 16,600 (see paragraph 92), the figure will, on the basis of the assumed increase in population, as well as the accepted level of 20,000 immigrants per annum and an accepted growth of 2.79% per annum in productivity, decrease to minus 30,600 in 1970. As a result of the measures mentioned in paragraph 341, it is considered that the quality and quantity of the supply of White labour will be increased to such an extent that the realisation of a 5.4% average annual growth rate will indeed be possible. It is estimated that the number of Non-White unemployed and unclassified workers will decrease at the satisfactory rate of about 10,500 persons per annum.

338. The estimated change in the pattern of employment implies a certain measure of development in productivity[28]. The increase in productivity for the 5.4% growth alternative is estimated to amount to 2.79% per annum for the economy as a whole (see paragraph 89). This figure is somewhat lower than the ambitious increase in productivity of 2.95% per annum, which was the target indicated in the first E.D.P. for 1964-69. The attainment of the newly derived target is therefore easier. The estimated development of productivity in the main sectors is as follows : an average increase of 2.91% per annum in the Agricultural Sector; 3.04% per annum in the Mining Sector; 2.45% per annum in the Manufacturing and Construction Sector; and 2.21% per annum in the Services Sector.

339. From the foregoing analyses, although in terms of White and Non-White labour, it can be deduced that the attainment of a 5.4% growth rate is closely related to developments in the supply of skilled labour.

340. It therefore follows that, as in the past, measures to relieve this relative scarcity of skilled labour will demand the attention of the Government. An attempt should first of all be made to improve the skill of our domestic population. Secondly, the supply of labour must to a large extent be supplemented by immigration.

341. The Government has already taken a number of steps to increase the supply of skilled labour and these can be briefly mentioned here.[29]

A. <u>General measures in regard to the internal population</u>

During 1963 an Advisory Committee for Manpower Research and Planning was established under the direction of the Department of Education, Arts and Science with the object of co-ordinating the manpower research of all government and semi-government institutions concerned with matters relating to manpower. In addition, it is the function of this Committee to advise the Government on the supply, training and application of the Republic's

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28) Although not completely correct, the changes in productivity are measured here as the changes in the G.D.P. per person employed.

29) These measures were discussed in greater detail in the first Economic Development Programme for 1964-1969.

manpower resources. Since this Committee is itself unable to undertake any manpower research a Manpower Centre, with a highly-trained personnel, was created in 1964 as a sub-section of the National Bureau of Educational and Social Research. The Manpower Centre conducts such surveys as the Committee considers necessary and processes the information in a form which will enable the Committee to advise the Government on the various aspects of the Republic's manpower. The following projects covering different aspects of the manpower problem are at present being carried out or planned :

(i) During 1965 a talent survey of all White standard 6 pupils in the four provinces and South West Africa was conducted. The purpose of this Survey is to determine the potential of the future supply of White manpower. The information, which is at present being processed, will immediately be given to the schools when available in order to enable them to train these pupils to the maximum of their capabilities. The results of this survey will be published. At present work is also under way to design battery tests for the different non-White races so that similar talent surveys can be conducted on pupils of the other racial groups.

(ii) Early in 1966 a survey will be conducted to determine what qualifications are demanded by employers for entry into certain occupations. At first this survey will be confined to professional, semi-professional, technical, managerial, executive and administrative occupations, namely those occupations in which large shortages occur. The results of this survey, which will also be published, will indicate the training requirements in regard to the demand for high-level manpower of all races.

(iii) The Manpower Centre converted the broad pattern of the future development of the sectoral demand for labour, as indicated in the E.D.P. for 1964-1969, into a programme showing the future development in the demand for labour on an occupational basis for each race and sex. This study therefore shows the expected future demand for labour in broad occupational groups. The results of this study will also be published. It is intended, however, to repeat this study every year after the publication of the latest E.D.P.

(iv) Work is at present in progress on the compilation of a national register of graduates in the physical sciences and the humanities. This register is expected to be completed by June, 1966, after which it will be published. The register will give a complete picture of a section of the high-level manpower, especially in regard to the utilisation and the erosion, through retirement and death, of this section of the manpower.

(v) Another project which is at present being carried out by the Manpower Centre is a study of the avenues of employment for Bantu in the Bantu homelands. This study is expected to take a considerable time to complete.

The above studies will supply information regarding the potential of the future supply of labour, the future demand for labour on an occupational basis, the training requirements of high-level manpower in particular, and the employment avenues open to Bantu in their homelands. On the basis of this information the Manpower Centre will, in collaboration with the National Advisory Educational Council, draw up to a comprehensive training programme which will continually be adapted to technological progress and the demands of a changing economy. In this way educational authorities will be able to implement a flexible training scheme which will be better suited to the expected pattern of the demand for labour on a racial, sex, occupational and sectoral basis.

In addition to the foregoing, an attempt is being made to increase the supply of skilled Bantu for employment in their homelands by :-

(i) the establishment of special trade schools in Bantu areas in order to train operators;

(ii) allowing prospective apprentices, after completing their courses at the trade schools, to receive the practical part of their training either in the workshops of the Department of Bantu Administration and Development or in the building organisations and motor repair workshops of the Bantu Trust; and

(iii) enabling Bantu in border industries to perform skilled work so that they can be trained to act later as entrepreneurs and key workers in their homelands.

In regard to Indians and Coloureds, attempts are being made to increase the supply of skilled labour by :

(i) giving prospective apprentices of these races the maximum opportunity to receive practical training under the guidance of qualified artisans in the construction of Indian and Coloured towns under contracts awarded by the Department of Community Development;

(ii) enabling apprentices at the trade schools to receive the practical part of their vocational training in a way similar to that proposed for the Bantu; and

(iii) granting certain border area concessions in certain backward areas to industrialists who employ Indians and Coloureds, or to all industrialists in specific backward areas.

B. <u>Immigration</u>

Immigration is a very important short-term measure to alleviate the shortage of skilled workers. Immigration to South Africa is confined to skilled workers and is coupled as far as possible with specific vacancies in order to ensure that immigrants will not deprive South Africans of their work, or that immigrants will not be without work in the Republic. By the end of 1964 it was already evident that in 1965 African countries would be less important as a source of White immigrants than in 1964. The Department of Immigration took immediate

steps and at the beginning of 1965 increased the number of immigration offices overseas, as well as the staff of its existing offices. There are indications that the number of immigrants from European countries will be higher in 1965 than in 1964, mainly as a result of the timely steps taken by the Department of Immigration.

(d) Monetary conditions and public finance

342. In so far as the monetary and financial implications of the 5.4% growth rate alternative are concerned, it would appear that the amount of money which it would normally be possible to create on the basis of the expected increase in the gold and foreign exchange reserves up to 1970, will be sufficient to meet the demand for money. There will be an upward movement in interest rates in the event of a significant net outflow of capital, unless the monetary authorities institute compensatory measures. Should there be no significant net capital outflow, however, the financing of this rate of growth would not appear to present any serious problems.

343. In regard to Public Finance it is estimated that the surplus of current revenue over current expenditure will decrease from R285 million in the base year 1964 to approximately R200 million in the first years covered by the Programme, after which it will gradually increase to R216 million in 1970. These surpluses are equal to the savings of the Public Sector according to national accounts concepts and are not synonymous with, for example, the surplus on the revenue account of the Central Government. These surpluses are therefore not necessarily an indication that tax relief is desirable or possible. It is consequently estimated that the savings of the Public Sector will decrease from 4.2% of the net national income in 1964 to 2.4% in 1970.

(e) Sectoral development

344. The sectoral developments show that the average growth rate of 20 sectors is higher than that of the economy as a whole, i.e. at the rate of 5.4% per annum. Of these 20 sectors, 11 grow at rates varying between 5.5% and 7% per annum,[30] while the remaining 9 sectors expand at a rate exceeding 7% per annum. These 9 sectors, which are estimated to have the greatest growth potential on the basis of 1964, are petroleum and coal products (No. 18); transport equipment (excluding motor vehicles) (No. 25); paper and paper products (No. 12); textiles (No. 7); machinery (excluding electrical machinery) (No. 23); basic industrial chemicals (No. 16); basic iron products (No. 20); electrical equipment and machinery (No. 24); and basic non-ferrous metals (No. 21).

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30) These sectors are beverages and tobacco (No. 6); wood and wood products (No. 10); printing, publishing and allied industries (No. 13); rubber products (No. 15); miscellaneous chemicals (No. 17); non-metallic mineral products (No. 19); metal products (No. 22); motor vehicles and repair (No. 25); manufacture of miscellaneous products (No. 27); electricity, gas and water (No. 28); and miscellaneous services (No. 31).

345. In order to show more clearly the estimated implications of the sectoral production figures, the course of employment and gross capital formation are also indicated for the various sectors. The sectoral figures for exports shown in these analyses must be interpreted as minimum targets, i.e. they must at least be attained if an overall growth of 5.4% per annum is to be achieved in conjunction with a development in the balance of payments which is at least as favourable as that shown in Table 2. If the exports of any sector fall short of the level indicated, the difference will have to be made good by higher exports by another sector, or by lower imports, unless a less favourable development in the balance of payments than that estimated is accepted. On the whole, these sectoral export targets should be attainable if purposeful and energetic efforts are made in this direction.

346. In so far as bottlenecks on a sectoral basis are concerned, the sectoral production figures show the estimated production and demand for the products of each sector which are expected to accompany the realisation of the given overall growth rate. If these estimates prove to be more or less correct and the given overall growth rate is attained, bottlenecks could arise if any specific sector is unable to produce the estimated output. There could be two reasons for this, namely, the fact that the demand during a particular year grew more rapidly than the average growth rate estimated for the whole period owing to a cyclical upswing, or that the expansion in its production was insufficient even to keep up with the estimated regular increase in demand. Bottlenecks of this nature in the different sectors will of course not be of equal significance for the attainment of the target overall rate of growth. Bottlenecks in the "basic" sectors such as coal mining, power supply, transport and communications, basic iron and steel, etc., are of much greater importance than bottlenecks arising in sectors which produce mainly consumer goods. In the E.D.P. no forecasts are made of the actual production (in contrast with the indicated targets of production) of the different sectors in future years, and consequently it cannot be determined to what extent the sectors will attain the set targets. It is therefore not possible to give an advance indication at this stage of the sectors in which bottlenecks will arise. It is known, however, that bottlenecks were experienced in certain sectors[31] in the base year. Unfortunately, insufficient information is available to identify, even for the base year, all the bottlenecks which existed, and to determine their extent in a scientific manner. Three bottlenecks, however, enjoyed wide publicity during 1964, namely, a shortage of skilled manpower in certain sectors, a transport bottleneck, and a bottleneck caused by the fact that the domestic demand for basic iron and steel products considerably exceeded the supply. In earlier sections of this document the implications of the projected economic development for the shortage of skilled manpower were fully discussed, and the steps taken to solve the problem were also indicated. This matter will therefore not be discussed further at this stage. A specific study of the implications of the E.D.P. for railway transport requirements, and a comparison of these requirements with those estimated by the South African Railways, indicated that the problem was not really an underestimation of the country's railway

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31) The question which arises is the extent to which these bottlenecks were the result of the 6.3% overall rate of growth in the base year, which was high in comparison with the target rate of growth of 5.5% per annum.

transport requirements[32] for the base year or for future years by the South African Railways. The three problems actually confronting the Railways are, firstly, to obtain sufficient manpower of the various types needed to satisfy the future demand for railway transport services, secondly, to procure sufficient funds on a continuous basis for the required capital formation and, thirdly, to meet the abnormally large increases in the demand for railway transport which, apart from the ordinary seasonal fluctuations, occur from time to time (as for instance, in the case of the sharp increase between 1963 and 1964). The first-mentioned two problems were discussed with the Co-ordinating Committee of Departmental Heads and brought to the attention of the Cabinet. A study of the position of the basic iron and steel products indicated that the total domestic consumption of these products showed abnormally high increases during 1963 and 1964. These increases were much higher than the average which could be maintained over a number of years. The figures given in the E.D.P. for 1964-1969, as well as those calculated by iron and steel producers, underestimated this increase in the total domestic consumption during 1964, with the result that the rise in local production was unable to keep up with the increase in the demand. Large quantities of steel consequently had to be imported with a resultant general cost-increasing effect in the Republic,[33] a weakening of our competitive position in export markets, and a considerable net loss of foreign exchange. In the discussions of the Sectoral Advisory Committee for the basic iron and steel sector, however, agreement was reached on the approximate level of the future domestic demand for iron and steel if the target growth rate of 5.4%, on the basis of 1964, is achieved for the economy as a whole. It also appeared that the expansions at present foreseen in local production capacity would be more than adequate to satisfy the estimated regular increase in demand. There is therefore no reason to expect a structural bottleneck in this sector over the period up to 1970. As a matter of fact, an increase in the net exports of iron and steel is expected over this period.

### (4) The implications of the economic developments in 1965 for the targets of the Economic Development Programme

347. At this stage complete information describing the pattern of economic developments in 1965 is not yet available. In fact, at the time when this Programme was finalised, the end of 1965 had not yet been reached. It was, however, possible from the information available to draw certain general conclusions about the probable course of the most important economic magnitudes, and to indicate its implications for the targets in the Economic Development Programme. As soon as further details of economic activities in 1965 become available, a more detailed analysis will have to be made.

348. It appears that the high rate of economic expansion which characterised 1964, continued during the first half of 1965 and probably even surpassed the target of 5.4%. From

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32) The estimates of the railway transport requirements for 1969 according to the E.D.P. for 1964-1969 were only 4% higher than the figures used in the calculations of the South African Railways.

33) The landed cost of imported steel is generally considerably higher than the price of the local product.

the middle of 1965 economic activities apparently began to level off. The Bureau of Economic Research of the University of Stellenbosch[34] estimated that at current prices the net domestic product increased by 10.2% during the financial year 1964/65 which ended on 30 June, 1965, the increase for the year 1965/66 being put at 7.6%. For the calendar year 1965 the expansion can apparently be taken as approximately 8.5-9% at current prices and as approximately 5.5-6.0% in real terms.

349. It appears from the expectations for the financial year 1965-1966 that the rate of expansion in the calendar year 1966 will be appreciably lower than that in 1965 and possibly even lower than the target rate of 5.4%. If that is indeed the case, it would merely imply that a compensatory adjustment in the target growth rate would have to be made later during the programming period. The phenomenon of cyclical economic development, i.e. a rapid expansion followed by a slower expansion or contraction, is generally accepted as a normal feature of the capitalistic system of private ownership and the market mechanism. It is therefore also normal for the South African economy.

350. In regard to the utilisation of the national product, all the indications are that the gross domestic expenditure, i.e. total investment, private consumption and current Government expenditure, will exceed the gross national product in 1965. Consequently there will probably be a large deficit on the current account of the balance of payments in 1965 instead of the small surplus provided for in the Programme. If the developments of the above magnitudes, as seen at this early stage, are compared with the targets for 1965 set in the E.D.P., the actual investment in stocks in particular appears to be much higher than the increase in stocks for which provision is made in the Programme. It would also appear that the gross fixed capital formation in 1965 will be slightly higher than that considered necessary for a 5.4% growth rate. According to preliminary information, the level of private and public consumption expenditure in 1965 does not differ materially from the targets set in the Programme.

351. The annual increases in stocks for which provision was made in the E.D.P., were described as normal increases. At the same time it was stated that changes in stocks would deviate annually from these "normal" increases. On the basis of the information available at present, the estimates of "normal" increases in stocks in the E.D.P. must be considered ample, but obviously they will have to be revised annually in the light of the latest information available. If the estimates approximately indicate the actual magnitude of the increase in stocks required at the target growth rate, the actual investment in stocks can be expected to fluctuate round these "normal" increases. If the investment in stocks during 1965 should prove to be much higher than the "normal" increase, it can be expected that it will have to be much lower in another year or in other years of the programming period.

352. If the final figures describing economic development in 1965 should confirm the above diagnosis, which was based on very preliminary figures, it would appear that the unfavourable course of the current account on the balance of payments actually experienced in 1965 would not necessitate any substantial modifications in the targets of this Programme.

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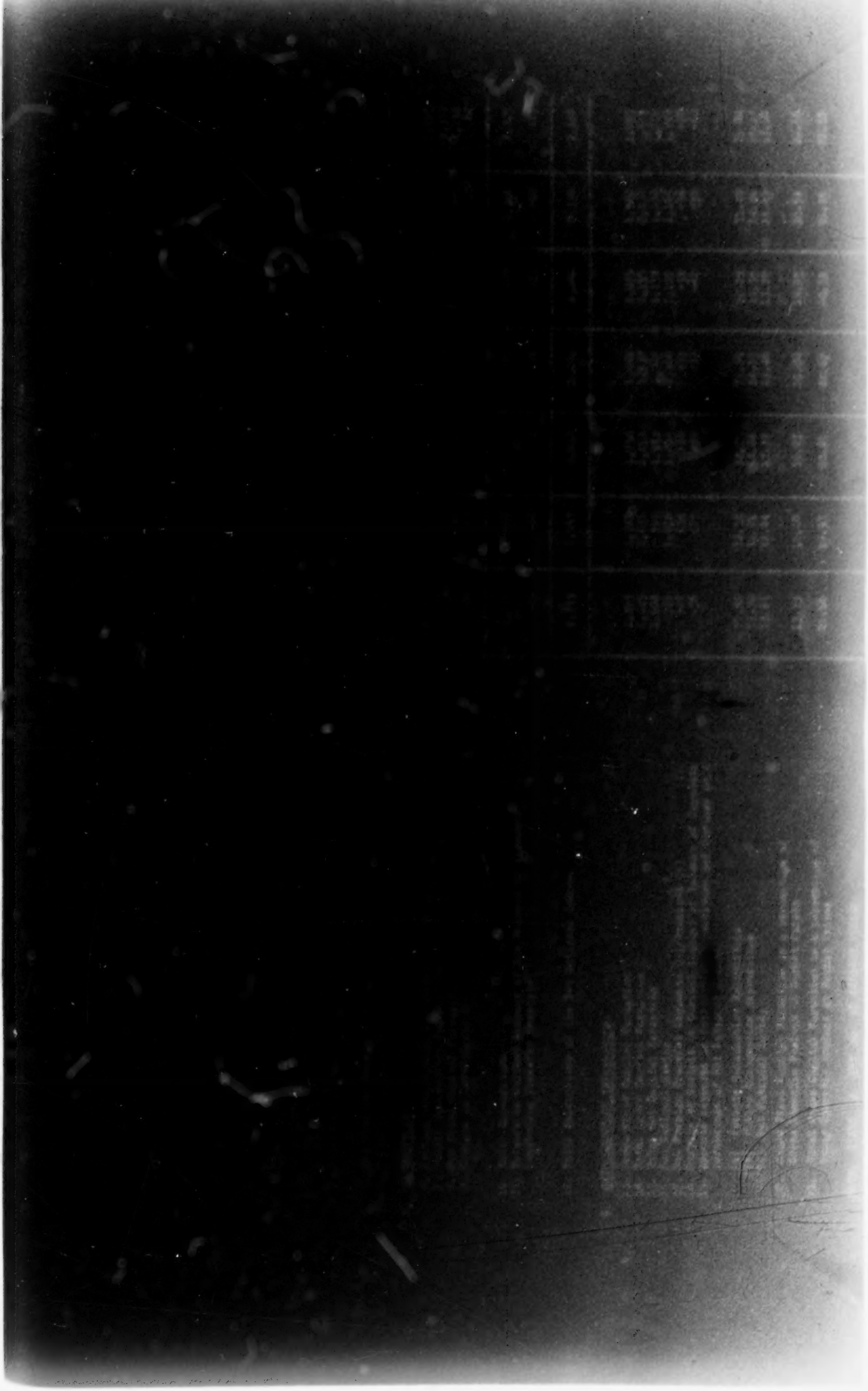
34) Bureau of Economic Research : Prospects for 1966.



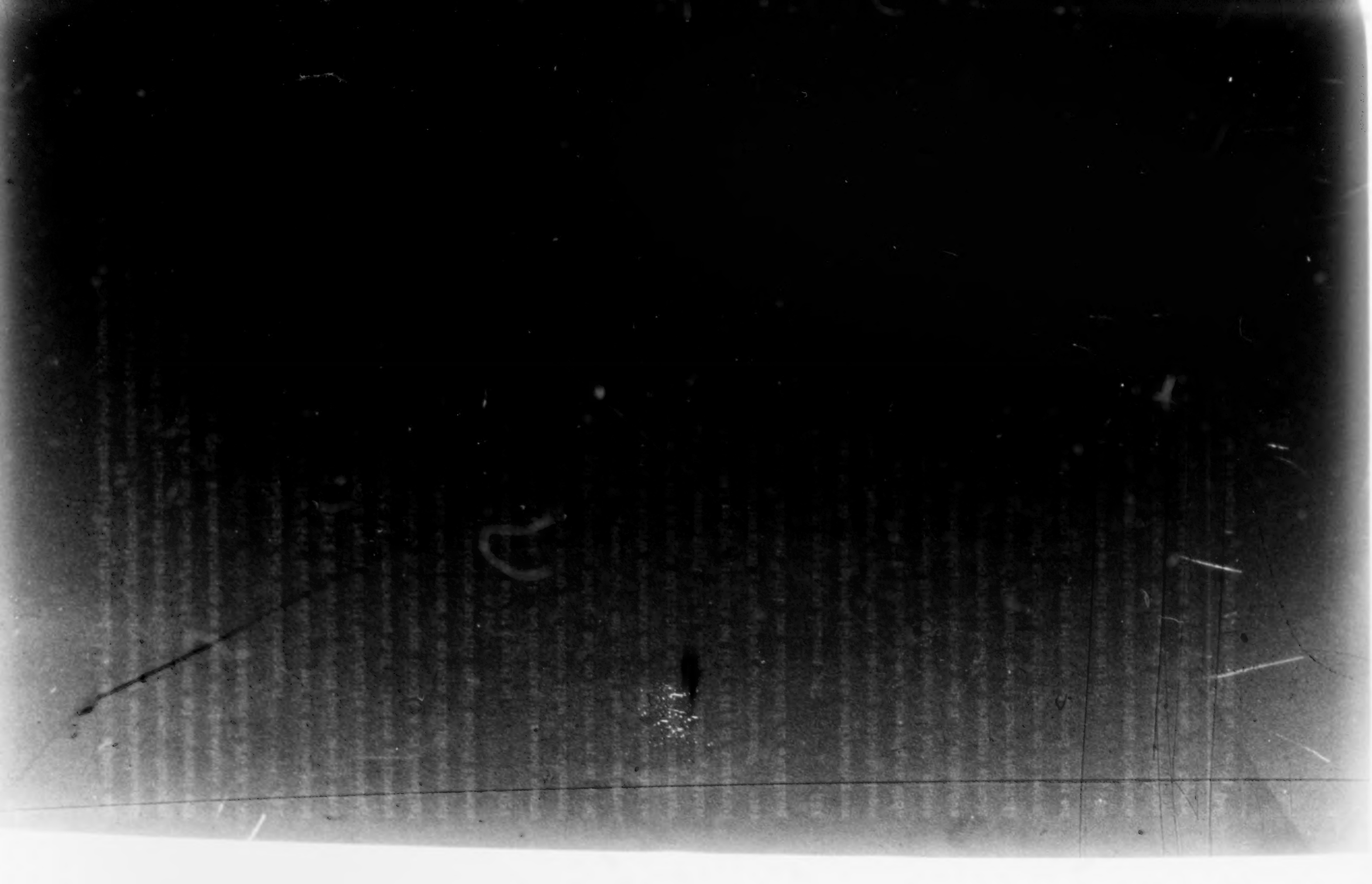


TABLE 1.

NATIONAL INCOME AND EXPENDITURE

(All figures relating to sums of money are expressed in R million and in terms of 1964 prices)

(All figures relate to the Republic, S.W.A. and the High Commission-Territories)

| | 1964 | 4.5% | | 5.4% | | 5.9% | |
|---|---|---|---|---|---|---|---|
| | | 1968 | 1970 | 1968 | 1970 | 1968 | 1970 |
| A. INCOME: | | | | | | | |
| 1. Gross Domestic Product at Market Prices | 7,588 | 9,188 | 10,111 | 9,365 | 10,403 | 9,544 | 10,703 |
| 2. Depreciation | 641 | 836 | 950 | 852 | 979 | 869 | 1,009 |
| 3. Net Factor Payments | 212 | 216 | 228 | 220 | 232 | 224 | 236 |
| 4. Effect of changes in Terms of Trade in comparison with 1964 | - | -69 | -103 | -71 | -106 | -75 | -110 |
| 5. Net National Income at Market Prices | 6,735 | 8,067 | 8,830 | 8,222 | 9,086 | 8,376 | 9,348 |
| B. EXPENDITURE: | | | | | | | |
| 6. Private Consumption Expenditure | 4,891 | 5,836 | 6,424 | 5,911 | 6,565 | 5,980 | 6,712 |
| 7. Public Consumption Expenditure | 923 | 1,195 | 1,312 | 1,203 | 1,322 | 1,211 | 1,337 |
| 8. Net Fixed Capital Formation | 856 | 926 | 998 | 1,010 | 1,096 | 1,091 | 1,194 |
| 9. Changes in Inventories | 148 | 69 | 75 | 76 | 80 | 78 | 82 |
| 10. Total Expenditure | 6,818 | 8,026 | 8,809 | 8,200 | 9,063 | 8,360 | 9,325 |
| 11. Balance on Current Account of the Balance of Payments (excluding Transfer Receipts) | -83 | +41 | +21 | +22 | +23 | +16 | +23 |
| 12. Total Expenditure of the Net National Income | 6,735 | 8,067 | 8,830 | 8,222 | 9,086 | 8,376 | 9,348 |
| C. SUPPLEMENTARY INFORMATION: | | | | | | | |
| 13. Gross Fixed Capital Formation | 1,497 | 1,762 | 1,948 | 1,862 | 2,075 | 1,960 | 2,203 |
| 14. Total Gross Capital Formation | 1,645 | 1,831 | 2,023 | 1,938 | 2,155 | 2,038 | 2,285 |
| 15. Total Net Capital Formation | 1,004 | 995 | 1,073 | 1,086 | 1,176 | 1,169 | 1,276 |
| 16. Net National Saving | 921 | 1,036 | 1,094 | 1,108 | 1,199 | 1,185 | 1,299 |
| 17. Net Foreign Transfer Payments (-)/Receipts (+) | +27 | +34 | +38 | +35 | +39 | +36 | +40 |
| 18. Examples of Deficit on Current Account of Balance of Payments | -56 | +75 | +59 | +57 | +62 | +52 | +63 |
| 19. Amounts expended on Consumption Expenditure and Savings as a percentage of Net National Income: | | | | | | | |
| (i) Private Consumption Expenditure | 72.62 | 72.34 | 72.75 | 71.89 | 72.25 | 71.40 | 71.80 |
| (ii) Public Consumption Expenditure | 13.70 | 14.81 | 14.86 | 14.63 | 14.55 | 14.46 | 14.30 |
| (iii) Net National Saving | 13.67 | 12.84 | 12.39 | 13.48 | 13.20 | 14.15 | 13.90 |
| 20. Gross Fixed Capital Formation as a percentage of Gross Domestic Product at Market Prices | 19.73 | 19.18 | 19.27 | 19.88 | 19.95 | 20.54 | 20.58 |
| 21. Total Gross Capital Formation as a percentage of Gross Domestic Product at Market Prices | 21.68 | 19.93 | 20.01 | 20.69 | 20.72 | 21.35 | 21.35 |

TABLE 2.

BALANCE OF PAYMENTS

(All figures related to sums of money are expressed in £ million and in terms of 1964 prices)

(All figures relate to the Republic, S.W.A. and the High Commission Territories)

| | | 4.9% | | 5.4% | | 5.9% | |
|---|---|---|---|---|---|---|---|
| | 1964 | 1968 | 1970 | 1968 | 1970 | 1968 | 1970 |
| 1. Surplus or deficit on the Current Account of the Balance of Payments | -56 | 75 | 59 | 57 | 62 | 52 | 63 |
| 2. Effect of changes in the Terms of Trade in comparison with 1964 | - | -69 | -103 | -71 | -106 | -75 | -110 |
| 3. Balance on Current Account in terms of 1964 prices | -56 | 144 | 162 | 128 | 168 | 127 | 173 |
| 4. Merchandise Imports | 1590 | 1681 | 1699 | 1723 | 1769 | 1775 | 1852 |
| 5. Merchandise Exports and Re-exports | 1083 | 1284 | 1327 | 1316 | 1411 | 1375 | 1508 |
| 6. Gold Production | 736 | 818 | 827 | 818 | 827 | 818 | 827 |
| 7. Factor Receipts | 57 | 59 | 62 | 59 | 62 | 59 | 62 |
| 8. Factor Payments | 269 | 275 | 290 | 279 | 294 | 283 | 298 |
| 9. Non-factor Receipts | 158 | 178 | 194 | 179 | 196 | 180 | 197 |
| 10. Non-factor Payments | 258 | 273 | 297 | 277 | 304 | 283 | 311 |
| 11. Transfer Payments (-)/ Receipts (+) | 27 | 34 | 38 | 35 | 39 | 36 | 40 |
| 12. Balance on Current Account in terms of 1964 prices | -56 | 144 | 162 | 128 | 168 | 127 | 173 |

NOTE: ITEMS 1 AND 2 AT CURRENT PRICES

TABLE 1.

CONTRIBUTIONS TO G.D.P. AND EMPLOYMENT IN THE PRINCIPAL SECTORS OF THE ECONOMY

(All figures relate to the Republic only)

| | | 4.9% | | 5.4% | | 5.9% | |
|---|---|---|---|---|---|---|---|
| | 1964 | 1968 | 1970 | 1968 | 1970 | 1968 | 1970 |
| 1. Contributions of the Principal Sectors to the G.D.P. at factor cost: | | | | | | | |
| Total (Rm) | 6,889 | 8,358 | 9,200 | 8,519 | 9,466 | 8,682 | 9,739 |
| (i) Agriculture | 677 | 806 | 879 | 809 | 883 | 814 | 890 |
| (ii) Mining | 866 | 953 | 998 | 963 | 1,014 | 974 | 1,032 |
| (iii) Manufacturing | 2,063 | 2,592 | 2,902 | 2,672 | 3,035 | 2,754 | 3,176 |
| (iv) Services | 3,283 | 4,007 | 4,421 | 4,075 | 4,534 | 4,140 | 4,641 |
| 2. Percentage contributions of the Principal Sectors to the G.D.P. at factor cost | | | | | | | |
| (i) Agriculture | 9.8 | 9.7 | 9.6 | 9.5 | 9.3 | 9.4 | 9.1 |
| (ii) Mining | 12.6 | 11.4 | 10.8 | 11.3 | 10.7 | 11.2 | 10.6 |
| (iii) Manufacturing | 29.9 | 31.0 | 31.5 | 31.4 | 32.1 | 31.7 | 32.6 |
| (iv) Services | 47.7 | 47.9 | 48.1 | 47.8 | 47.9 | 47.7 | 47.7 |
| 3. Total Population of the Republic ('000) | 17,526 | 19,198 | 20,092 | 19,198 | 20,092 | 19,198 | 20,092 |
| 4. Total Economically Active Population of the Republic (,000)[1] | 6,210.5 | 6,777.4 | 7,077.0 | 6,777.4 | 7,077.0 | 6,777.4 | 7,077.0 |
| White | 1,238.3 | 1,341.0 | 1,393.7 | 1,341.0 | 1,393.7 | 1,341.0 | 1,393.7 |
| Non-White | 4,972.2 | 5,436.4 | 5,683.3 | 5,436.4 | 5,683.3 | 5,436.4 | 5,683.3 |
| 5. Demand for White Labour (,000) | 1,221.7 | 1,338.4 | 1,402.8 | 1,351.9 | 1,424.3 | 1,368.2 | 1,450.8 |
| (i) Agriculture | 112.0 | 102.7 | 98.3 | 102.7 | 98.3 | 102.7 | 98.3 |
| (ii) Mining | 62.5 | 60.9 | 60.1 | 61.1 | 60.4 | 61.4 | 60.9 |
| (iii) Manufacturing | 331.7 | 377.7 | 403.0 | 385.1 | 414.9 | 392.7 | 427.4 |
| (iv) Services | 715.5 | 797.1 | 841.4 | 803.0 | 850.7 | 811.4 | 864.2 |
| 6. Demand for Non-White Labour (,000) | 4,703.3 | 5,161.4 | 5,413.3 | 5,201.5 | 5,477.6 | 5,249.9 | 5,555.7 |
| (i) Agriculture | 1,709.3 | 1,834.6 | 1,902.3 | 1,834.6 | 1,902.3 | 1,834.6 | 1,902.3 |
| (ii) Mining | 550.8 | 541.3 | 536.6 | 543.3 | 539.6 | 546.5 | 544.4 |
| (iii) Manufacturing | 871.1 | 1,005.6 | 1,080.5 | 1,027.0 | 1,115.1 | 1,049.4 | 1,151.7 |
| (iv) Services | 1,572.1 | 1,779.9 | 1,893.9 | 1,796.6 | 1,920.6 | 1,819.4 | 1,957.3 |
| 7. Total Demand for Labour (,000) | 5,925.0 | 6,499.8 | 6,816.1 | 6,553.4 | 6,901.9 | 6,618.1 | 7,006.5 |
| (i) Agriculture | 1,821.3 | 1,937.3 | 2,000.6 | 1,937.3 | 2,000.6 | 1,937.3 | 2,000.6 |
| (ii) Mining | 613.3 | 602.2 | 596.7 | 604.4 | 600.0 | 607.9 | 605.3 |
| (iii) Manufacturing | 1,202.8 | 1,383.3 | 1,483.5 | 1,412.1 | 1,530.0 | 1,442.1 | 1,579.1 |
| (iv) Services | 2,287.6 | 2,577.0 | 2,735.3 | 2,599.6 | 2,771.3 | 2,630.8 | 2,821.5 |
| 8. Unemployed and Unspecified [2] | | | | | | | |
| Total (,000) | 285.5 | 277.6 | 260.9 | 224.0 | 175.1 | 159.3 | 70.5 |
| White | 16.6 | 2.6 | -9.1 | -10.9 | -30.6 | -27.2 | -57.1 |
| Non-White | 268.9 | 275.0 | 270.0 | 234.9 | 205.7 | 186.5 | 127.6 |

1) Economically Active Population as defined under item 4, includes Unemployed and Unspecified

2) See comments on p. 6.

TABLE 4.

CAPITAL FORMATION IN THE PRINCIPAL SECTORS OF THE ECONOMY

(All figures relating to sums of money are expressed in R Million and terms of 1964 prices)

(All figures relate to the Republic, S.W.A. and the High Commission Territories)

| | | 4.5% | | 5.0% | | 5.5% | |
|---|---|---|---|---|---|---|---|
| | 1964 | 1968 | 1970 | 1968 | 1970 | 1968 | 1970 |
| 1. Net Fixed Capital Formation | 856 | 926 | 998 | 1010 | 1096 | 1091 | 1194 |
| (i) Agriculture | 48 | 52 | 51 | 55 | 55 | 62 | 62 |
| (ii) Mining | 51 | 17 | 6 | 17 | 6 | 17 | 6 |
| (iii) Manufacturing | 228 | 161 | 180 | 185 | 209 | 210 | 241 |
| (iv) Services | 529 | 696 | 761 | 753 | 826 | 802 | 885 |
| 2. Depreciation | 641 | 836 | 950 | 852 | 979 | 869 | 1009 |
| (i) Agriculture | 74 | 86 | 93 | 88 | 96 | 89 | 98 |
| (ii) Mining | 85 | 92 | 91 | 92 | 91 | 92 | 91 |
| (iii) Manufacturing | 247 | 319 | 366 | 328 | 382 | 337 | 399 |
| (iv) Services | 235 | 339 | 400 | 344 | 410 | 351 | 421 |
| 3. Gross Fixed Capital Formation | 1497 | 1762 | 1948 | 1862 | 2075 | 1960 | 2203 |
| (i) Agriculture | 122 | 138 | 144 | 143 | 151 | 151 | 160 |
| (ii) Mining | 136 | 109 | 97 | 109 | 97 | 109 | 97 |
| (iii) Manufacturing | 475 | 480 | 546 | 513 | 591 | 547 | 640 |
| (iv) Services | 764 | 1035 | 1161 | 1097 | 1236 | 1153 | 1306 |
| 4. Changes in Inventories | 148 | 69 | 75 | 76 | 80 | 78 | 82 |
| 5. Total Net Capital Formation | 1004 | 995 | 1073 | 1086 | 1176 | 1169 | 1276 |
| 6. Total Gross Capital Formation | 1645 | 1831 | 2023 | 1938 | 2155 | 2038 | 2285 |

TABLE 5.

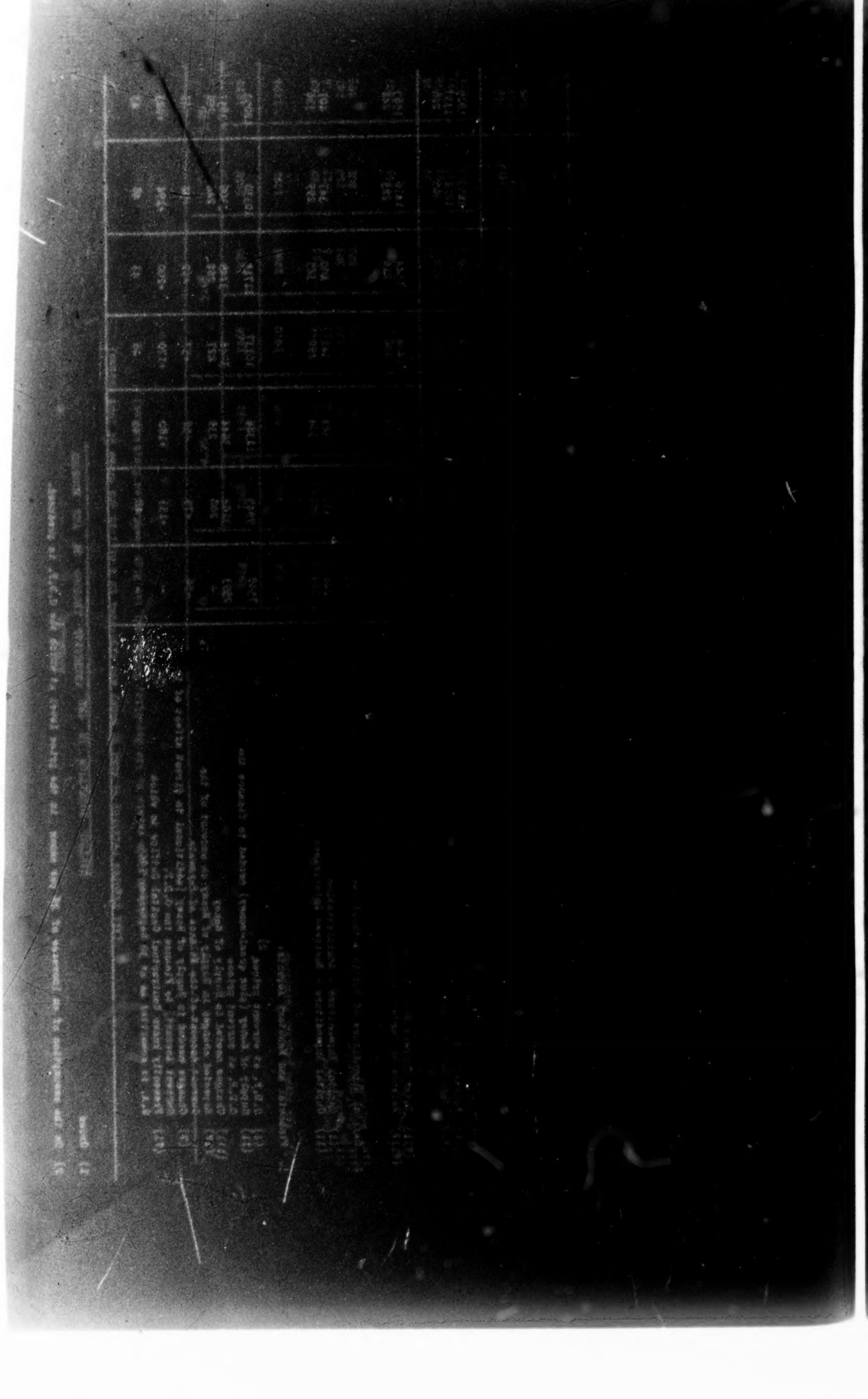
PUBLIC INCOME AND EXPENDITURE AND FINANCIAL AND MONETARY ASPECTS OF THE G.D.P.

(All figures relating to sums of money are expressed in R Million and in terms of 1964 prices)
(All figures relate to the Republic, S.W.A. and the High Commission Territories)

| | | 4.9% | | 5.4% | | 5.9% | |
|---|---|---|---|---|---|---|---|
| | 1964 | 1968 | 1970 | 1968 | 1970 | 1968 | 1970 |
| 1. Current Public Income and Expenditure: | | | | | | | |
| (I) Direct Taxes | 659 | 754 | 810 | 769 | 833 | 784 | 858 |
| (II) Indirect Taxes less Subsidies | 486 | 593 | 643 | 600 | 660 | 608 | 676 |
| (III) Income from Properties and Current Transfers from Foreign Countries | 215 | 239 | 261 | 243 | 267 | 247 | 275 |
| (IV) Total Current Receipts | 1360 | 1586 | 1714 | 1612 | 1760 | 1639 | 1809 |
| (V) Consumption Expenditure on Goods and Services | 923 | 1195 | 1312 | 1203 | 1322 | 1211 | 1337 |
| (VI) Other Expenditure (transfers) | 152 | 197 | 216 | 201 | 222 | 205 | 228 |
| (VII) Total Current Expenditure | 1075 | 1392 | 1528 | 1404 | 1544 | 1416 | 1565 |
| (VIII) Balance on Current Account | 285 | 194 | 186 | 208 | 216 | 223 | 244 |
| 2. Capital Expenditure of Public Authorities [1] | | | | | | | |
| (I) Capital Expenditure - Administration | 246 | 331 | 386 | 342 | 400 | 347 | 407 |
| (II) Capital Expenditure - Business Enterprises | 229 | 281 | 314 | 290 | 325 | 299 | 336 |
| 3. Financial and Monetary Aspects: | | | | | | | |
| (I) G.D.P. at current prices [2] | 7588 | 9945 | 11386 | 10137 | 11715 | 10330 | 12053 |
| (II) Supply of Money (plus quasi-money) needed to finance the G.D.P. at current prices | 2593 | 3182 | 3644 | 3244 | 3749 | 3306 | 3857 |
| (III) Changes needed in Supply of Money | - | 208 | 239 | 227 | 262 | 246 | 286 |
| (IV) Expected changes in Supply of Money on account of the Current Account of the Balance of Payments | -56 | +75 | +59 | +57 | +62 | +52 | +63 |
| (V) Changes needed in Supply of Money (additional to direct effect of the Current Account) to finance the G.D.P. | - | +133 | +180 | +170 | +200 | +194 | +223 |
| (VI) Presently known Contractual Capital Outflow to which S.A. is committed as at 30 September 1965. | - | 48 | 43 | 48 | 43 | 48 | 43 |

1) Gross

2) On the assumption of an increase of 5% per annum in the price level at which the G.D.P. is produced.



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3. Mr. F.J.L. Wells.

7. Textiles.

1. Dr. D.A. Dalhuisen.
2. Mr. J.E. Minnaar.
3. Dr. R.C. Keegan.
4. Mr. J.F. Roos.
5. Mr. P.S. Rautenbach.
6. Mr. S. Boch.
7. Mr. V.F. McHattie.
8. Mr. R.W.K. Parsons.

8. Clothing industries and knitting mills.

1. Mr. S. Shlagman.
2. Mr. F. Travis.
3. Mr. A.M. Hollander.
4. Mr. A.J.J. Wessels.
5. Mr. W.J. Reid.
6. Mr. S.L. Jaff.
7. Mr. I. Phillips.
8. Mr. S.R. Back.
9. Mr. G. Heliwell.
10. Mr. C.S. Reinhardt.
11. Mr. W.E. MacWilliams.
12. Mr. F.H. Whitaker.
13. Mr. R.W.K. Parsons.

9. Footwear.

1. Mr. M.M. Dodo.
2. Mr. A.H. Everingham.
3. Mr. A.C. Townsend.
4. Mr. R.W.K. Parsons.

12. Paper and Paper Products.

1. Mr. C.F. Albertyn.
2. Mr. J.E. Henderson.
3. Dr. G. Raimondo.
4. Mr. P.E. Mayer.
5. Mr. W.B. Adams.
6. Mr. P. Sher.
7. Dr. J.W. Bowen.
8. Mr. R. Nel.
9. Mr. R.W.K. Parsons.

15. Rubber Products.

1. Mr. P.S. King.
2. Mr. R.W.K. Parsons.

16. Basic Industrial Chemicals.

1. Mr. L.W. Hassenkamp.
2. Mr. R. du Toit.
3. Mr. J. Taylor.
4. Mr. G.R. de Carle.
5. Mr. D. Marlow.
6. Mr. F.J.H. le Riche.
7. Mr. R.W.K. Parsons.

18. Petroleum and Coal Products.

1. Mr. W.B. England.
2. Mr. M. Kolijn.
3. Mr. S. Cowell.
4. Mr. D. Marlow.
5. Mr. F.J.H. le Riche.
6. Mr. R.W.K. Parsons.

20. Basic Iron.

1. Mr. W.G. Boustred.
2. Mr. C.L. Cartwright.
3. Mr. H. Oosthuizen.
4. Dr. C.M. Kruger.
5. Mr. S. Pienaar.
6. Mr. S.W. Sharp.
7. Mr. E.P. Drummond.
8. Mr. K. Lagaay.

21. Basic Non-Ferrous Metals.

1. Mr. J.H. Bath.
2. Mr. D.F. Doe.
3. Mr. M.N. du Toit.
4. Mr. H. Oosthuizen.
5. Mr. J. Rae.
6. Mr. E.P. Drummond.
7. Mr. K. Lagaay.
8. Mr. R.W. Zillie.

22. Metal Products.

1. Mr. D.T. Mahony.
2. Mr. B.G.A. Topper.
3. Mr. G.B. Brown.
4. Mr. C.E. Dickson.
5. Mr. W.A. Doherty.
6. Mr. W.H. Collins.
7. Mr. K. Lagaay.

23. Machinery (excluding electrical machinery).

1. Mr. C.T. Crosby.
2. Mr. K. Lagaay.
3. Mr. D.B. Miller.

24. Electrical Equipment and Machinery.

1. Mr. C.L. de Beer.
2. Mr. R.B. Price.
3. Mr. C.L. Brown.
4. Mr. L. Halle.
5. Mr. C.C. Swarts.
6. Mr. H. Silbermann.
7. Mr. G.A. MacWhirter.
8. Mr. K. Lagaay.
9. Mr. W. Bergman.
10. Mr. E.S. Tennant.
11. Mr. P. Kellett.
12. Mr. E.S. Mowat.
13. Mr. D.F. Rex.

25. Transport Equipment (excluding Motor Vehicles)

1. Mr. J.H. Catling.
2. Mr. P.K. Rankin.
3. Mr. W.F. Wegener.
4. Mr. K. Lagaay.
5. Mr. L. Zimmerman.
6. Mr. H. Lith.

26. Motor Vehicles and Repair.

1. Mr. R.J. Scott.
2. Mr. A.B. Theunissen.
3. Mr. R. Stainbank.
4. Mr. A.E. Burnett.
5. Mr. E.A. Wood.
6. Mr. A.A. Bollman.
7. Mr. J.A.R. Massyn.
8. Mr. R.G. du Plessis.
9. Mr. R.A. Richardson.
10. Mr. K.B. Wheelhouse.
11. Mr. S.G. Unity.
12. Mr. K. Lagaay.
13. Mr. R.W.K. Parsons.

30. Trade.

1. Mr. E.E. Bellingan.
2. Mr. A.J. Bosman.
3. Mr. E.R. Dixon.
4. Mr. J.P. Pels.
5. Mr. A. Bernitz.
6. Mr. H.S. Mabin.
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